

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION

ENVIRONMENT TEXAS CITIZEN LOBBY, INC., .  
and SIERRA CLUB, .  
Plaintiffs, .  
VS. . Civil Action  
No. H-10-CV-4969  
EXXONMOBIL CORPORATION, . Houston, Texas  
EXXONMOBIL CHEMICAL COMPANY, . February 18, 2014  
and EXXONMOBIL REFINING AND SUPPLY . 10:10 a.m.  
COMPANY, .  
Defendants. .  
. . . . .

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE DAVID HITTNER  
BENCH TRIAL  
**DAY 6 OF 13**

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PROCEEDINGS RECORDED BY STENOGRAPHIC MEANS,  
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## Sprayberry - Direct/Graham

1 PROCEEDINGS

2 February 18, 2014

3 THE COURT: Okay. Who's up? That's right. Okay.  
4 Let's see. This is Mr. Graham, correct?

10:10:12 5 MR. GRAHAM: Yes, your Honor.

6 THE COURT: All right. Call your next witness.

7 MR. GRAHAM: Plaintiffs call Ms. Sharon Sprayberry.

8 THE COURT: She's not been sworn.

9 THE CASE MANAGER: Please raise your right hand.

10:10:35 10 (The witness, **SHARON SPRAYBERRY**, called on behalf of the  
11 Plaintiffs, was sworn.)

12 THE COURT: The chair doesn't move. The microphone  
13 does. So, if you would adjust that up.

14 Okay. Go right ahead, please.

10:10:54 15 DIRECT EXAMINATION

16 BY MR. GRAHAM:

17 Q Good morning. State -- would you state your name for the  
18 record, please.

19 A My name is Sharon Sprayberry.

10:11:01 20 Q And are you a member of the Sierra Club?

21 A Yes, I am.

22 Q And when did you join the Sierra Club?

23 A I joined the Sierra Club in 2010.

24 Q And why did you join the Sierra Club?

10:11:12 25 A I was concerned about the air quality where I lived, and I

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1 decided that this was an organization that was working toward  
2 the same goals that I have.

3 **Q** Okay. And did any health issues --

4 **THE COURT:** Speak up a little bit.

10:11:27 5 **BY MR. GRAHAM:**

6 **Q** Did any health issues come into your decision to join the  
7 Sierra Club?

8 **A** Well, the health issues drove --

9 **THE COURT:** Yes or no?

10:11:35 10 **THE WITNESS:** Yes.

11 **THE COURT:** Next question.

12 **BY MR. GRAHAM:**

13 **Q** What were they?

14 **A** I had difficulty breathing.

10:11:40 15 **Q** Okay. And have you always had difficulty breathing?

16 **A** I've had difficulty breathing since I was diagnosed with  
17 asthma at age three months.

18 **Q** Where did you grow up?

19 **A** In Baytown.

10:11:55 20 **Q** Now, would you describe the health issues you experienced  
21 starting at three months and throughout your youth in Baytown.

22 **A** Difficulty breathing, wheezing.

23 **MR. RICE:** Objection, your Honor. I'm going to object  
24 to the relevance of any health issues prior to time discovered  
10:12:16 25 by this lawsuit.

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1 THE COURT: I understand. I'll give you a running  
2 objection to that. I'm going to allow her to testify. But I  
3 understand exactly, and we'll talk about that somewhere down the  
4 line. As of right now, overruled, but you'll have a running  
5 objection to that. Okay?

10:12:25

6 MR. RICE: Yes, sir.

7 THE COURT: And if there's a concern whether or not a  
8 statement is within your running objection, you'd better get up,  
9 okay, but it's just as to her medical conditions.

10:12:34

10 MR. RICE: Yes, sir.

11 THE COURT: Okay. I mean, that occurred before 2010.

12 MR. RICE: Yes, sir.

13 THE COURT: Go right ahead.

14 BY MR. GRAHAM:

10:12:42

15 **Q** You can answer.

16 **A** Wheezing, difficulty breathing. It was like breathing  
17 through a little straw. Emergency room visits, inability to  
18 exercise and run with the other kids.

19 THE COURT: Since you've been a youngster?

10:13:02

20 THE WITNESS: Since I've been a youngster.

21 BY MR. GRAHAM:

22 **Q** And you went to Baytown area schools growing up?

23 **A** Yes, I did.

24 **Q** And you went to high school in Baytown?

10:13:09

25 **A** Yes, I did.

Sprayberry - Direct/Graham

1 Q And what did you do after graduating from high school?

2 A I left Baytown and went to Waco, Texas, and attended Baylor  
3 University.

10:13:24

4 Q Was there any change in your health -- in your respiratory  
5 function when you moved to Waco?

6 A Yes. There was dramatic improvement.

7 Q Was it immediate?

8 A Yes.

9 Q Okay. And did you graduate from Baylor University?

10:13:35

10 A Yes, in 1972.

11 Q And what did you do after you graduated from Baylor?

12 A I had a music education degree and I went to Austin, Texas;  
13 and I taught school there for a year, did a little graduate  
14 work. And then I decided in 1976 to enter the Navy music  
15 program, and so I entered the Navy at that time.

10:13:55

16 Q And that was in nineteen --

17 A '76.

18 THE COURT: '76. All right. How long did you stay in  
19 the Navy?

10:14:08

20 THE WITNESS: I was in the Navy for 19 years and six  
21 months.

22 THE COURT: Was that enough to retire?

23 THE WITNESS: It is.

24 THE COURT: Okay. In the music department, is that --

10:14:17

25 THE WITNESS: The first three years I was in the Navy



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1 music program and then I was selected to become an officer and I  
2 went into unrestricted line officer.

3 THE COURT: What was your grade when you retired?

4 THE WITNESS: Lieutenant commander.

10:14:34 5 THE COURT: I understand that's the equivalent of an  
6 Army major, correct?

7 THE WITNESS: That's correct.

8 BY MR. GRAHAM:

9 Q And how was -- how were your respiratory -- how was your  
10:14:44 10 respiratory function during your naval career?

11 THE COURT: What did you do after you became a line  
12 officer?

13 THE WITNESS: After I became a line officer, I was in  
14 communications. I did communications work, and then I did some  
10:14:58 15 specialty work in morale, welfare, and recreation and a lot of  
16 variety of assignments.

17 THE COURT: Okay. Go right ahead.

18 THE WITNESS: My last assignment was executive officer  
19 of Naval Station - Ingleside.

10:15:13 20 THE COURT: California?

21 THE WITNESS: No. That's in -- it was a brand new  
22 port that was built in Texas near Corpus Christi, and my goal  
23 was to get home to Texas to retire. So that worked out for me  
24 to do that.

10:15:28 25 //

Sprayberry - Direct/Graham

1 BY MR. GRAHAM:

2 **Q** During your naval career, was your health -- how would you  
3 describe your health?

4 **A** It was great. The Navy requires that you do physical  
10:15:39 5 training regularly. I did it every day. I ran two and quarter  
6 miles every single day and had no issues with my breathing.

7 **Q** Did you have any other health issues while you were in the  
8 Navy?

9 **A** I did. When I was stationed in Naval Station - Ingleside,  
10:15:54 10 which is near Corpus Christi, my asthma began to return. And I  
11 again experienced wheezing, difficulty breathing, shallow  
12 breathing, inability to catch my breath. I had emergency room  
13 visits and a rather difficult time.

14 **Q** And were there any petrochemical refineries in the area of  
10:16:15 15 Ingleside?

16 **A** I lived in Corpus and --

17 THE COURT: Hold it. That's a yes or no.

18 THE WITNESS: Yes, there are.

19 BY MR. GRAHAM:

10:16:22 20 **Q** Were they close to where you were stationed?

21 **A** Yes.

22 **Q** And you've lived in Corpus Christi?

23 **A** Yes.

24 **Q** And there were refineries around Corpus, as well?

10:16:29 25 **A** Yes.

Sprayberry - Direct/Graham

1 Q Can you -- you were describing your health. Your  
2 respiratory function got significantly worse when you moved back  
3 to Corpus; is that right?

4 A That's correct.

10:16:43 5 MR. RICE: Object to the leading, your Honor.

6 THE COURT: Sustained. I understand.

7 BY MR. GRAHAM:

8 Q Okay. So what did you do? You said you retired in 1995  
9 from the Navy?

10:16:50 10 A Yes.

11 Q What did you do when you retired?

12 A I decided to go back into public education. So I went back  
13 to school, updated my credentials, got a job with the school  
14 district in Corpus Christi and stayed there and sort of worked  
10:17:04 15 my way up in the educational technology field.

16 Q And how long did you teach in Corpus Christi?

17 A I think it was seven or eight years that I was there.

18 Q And where did you go once you finished up teaching in  
19 Corpus?

10:17:19 20 A Then I was offered a position with the Goose Creek  
21 Consolidated Independent School District in Baytown to be the  
22 Director of Educational Technology which was an advancement for  
23 me. So I took that job and returned to Baytown.

24 Q In what year was that?

10:17:36 25 A 2004.

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1 Q And where did you move when you moved home to Baytown?

2 A I moved to the Country Club Oaks, 4609 St. Andrews Drive.

3 Q And is that close to the ExxonMobil refinery complex?

4 A Yes.

10:17:55 5 Q And as Director of Educational and Technology for the Goose  
6 Creek ISD, what was your -- what were your job responsibilities?

7 A My job was to teach and to promote the use of technology in  
8 teaching all subjects. So I worked with principals to  
9 incorporate technology in their schools and with teachers on how  
10:18:18 10 to use it with students.

11 Q And did you go out in the field to various schools in the  
12 area?

13 A Yes. Just about every day I was on the road going to the  
14 schools and meeting with teachers and observing and modeling and  
10:18:30 15 doing things like that.

16 MR. GRAHAM: Will you pull up Defense Exhibit 1012A.

17 BY MR. GRAHAM:

18 Q And, Ms. Sprayberry, would you step down from the stand and  
19 point out where you lived when you moved back to Baytown in 2004  
10:18:50 20 and thereafter, if possible?

21 A I lived up in this area right in here. It's the Country  
22 Club area.

23 Q So you're pointing to kind of the top right quadrant?

24 A Right, just a little northeast of the complex here.

10:19:20 25 Q So Country Club Oaks is the subdivision you lived in?

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1 **A** Yes.

2 **Q** And it's just north of the refinery complex?

3 **A** Yes.

4 **Q** About approximately how far from the perimeter of the  
10:19:33 5 ExxonMobil complex is it?

6 **A** It's approximately -- I can't get this to work.

7 THE COURT: We'll get it to work. We might as well.

8 THE WITNESS: It's approximately a mile.

9 Oh, the middle button there. Okay. It's

10:19:58 10 still -- okay. I'm sorry. Yes, it's this area right here.

11 THE COURT: So it's about one mile from the refinery,  
12 correct?

13 THE WITNESS: Yes, from this edge of the refinery.

14 BY MR. GRAHAM:

10:20:13 15 **Q** As part of your job responsibilities as the technology  
16 officer for Goose Creek ISD, can you point out some of the  
17 schools you visited as part of your job responsibilities?

18 **A** Yes, I can. Down in this lower quadrant right here,  
19 there's an elementary school that I attended when I was growing  
10:20:32 20 up there. San Jacinto Elementary. I was there.

21 **Q** And how far away is that from Exxon -- from the perimeter  
22 of the complex?

23 **A** It's even closer. I would say maybe half a mile to this  
24 edge of the refinery.

10:20:48 25 **Q** And where else?

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1 **A** Over to the right here off the map just slightly is Robert  
2 E. Lee High School. I was -- spent a lot of time there. Then  
3 if you -- if you look around to the upper left area over this  
4 way, there is Baytown Junior High, and I went and did a lot of  
10:21:08 5 work there, as well. And the schools are spread all the way  
6 around.

7 Now, I pointed out where I live which was the  
8 Country Club, and it's about a mile there. Even closer to the  
9 refinery was the Pumphrey Elementary in this area. That was my  
10:21:24 10 neighborhood school where I lived, and I spent time there, as  
11 well.

12 **Q** And, Ms. Sprayberry, could you point out where you grew up,  
13 where your childhood home was?

14 **A** Yes. It's right down here in this lower right-hand  
10:21:37 15 quadrant. This is considered the Britton Cravens subdivision,  
16 and my home was right about there.

17 **Q** So that is in the lower right quadrant just to the  
18 southeast of -- or east and south of the refinery complex?

19 **A** Yes, sir.

10:21:58 20 **Q** And your house is about a mile north of the plant. Are  
21 there any other industrial facilities that are as close to you  
22 as this ExxonMobil complex?

23 **A** No.

24 **Q** When you moved back from Corpus, you said you started  
10:22:16 25 suffering from -- excuse me. When you were in Corpus, you

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1 mentioned you started suffering from respiratory issues again;  
2 is that right?

3 **A** That's correct.

4 **Q** Okay. And did that continue when you moved back to  
5 Baytown?

6 **A** Yes.

7 **Q** And was there any change in your respiratory health when  
8 you moved back to Baytown?

9 **A** Well, after about a month or two, I noticed that it was  
10 even more severe; and I had to take more medication. I had to  
11 start using inhalers and nebulizers and other things to control  
12 it. I was, of course, learning my new job. So, you know, I  
13 didn't go to the doctor right away, but eventually I started  
14 going more regularly to try to get it under control.

15 **Q** And what do you attribute your respiratory issues to, if  
16 anything?

17 **A** I attribute it to the quality of the air.

18 **Q** Okay. And how was the air quality in Baytown?

19 **A** It was not good.

20 **Q** In what way?

21 **A** The air would be heavy, heavy smoggy, smokey kind of air  
22 that I would experience when I would go out to walk in the  
23 neighborhood. Sometimes it had a smell, sort of chemical smell.

24 **Q** When would you notice the chemical smell?

25 **A** When I would -- you know, when I would see the flares; and

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1 as I said, when I would be outside doing any kind of activity.

2 **Q** When you say when you'd see the flares, when you would see  
3 the flares where?

4 **A** The flares all along the side of the refinery. Most  
10:23:57 5 often -- get this thing going again -- most often all the flares  
6 on the side of the refinery.

7 **Q** So that's on the north side of the refinery is where you're  
8 pointing?

9 **A** Right. Of course, when I was over here, I would be driving  
10:24:09 10 around. I could see on this side, as well, but it -- most often  
11 I would see them as I would be outside in the neighborhood and I  
12 would see them or I'd be driving on that side of town.

13 **Q** And the flares you were pointing out or the area where the  
14 flares would be on the north side of the complex, could you see  
10:24:27 15 those from your home?

16 **A** I could see them from my neighborhood.

17 **Q** So if you were going for a walk in the neighborhood and  
18 there were flaring events going on, you would see them?

19 **A** Yes.

10:24:37 20 **Q** Were there any other signs of air pollution or bad air  
21 quality, as you said earlier, that you experienced when you  
22 moved to Baytown -- back to Baytown?

23 **A** Any other?

24 **Q** Did you see any other evidence of air pollution when you  
10:24:51 25 moved back to Baytown?



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1 **A** I -- just my own breathing and the flares. That was, you  
2 know, the incidents that I would say when I had the breathing  
3 problems.

10:25:12

4 **Q** Okay. Do you recall any specific flaring events that you  
5 experienced in Baytown?

6 **A** Yes, I do. There were several that stand out in my mind.

7 **Q** Did you ever call and complain about -- about flares or air  
8 emissions from the ExxonMobil refinery complex?

9 **A** I do remember calling a couple of times.

10:25:37

10 **Q** Who did you call?

11 **A** I don't know the name of the individual, but I looked up in  
12 the phone book, you know, the Exxon listing in the phone book  
13 and found a number where you could call and they were to answer  
14 your questions.

10:25:51

15 **Q** So, calling directly to Exxon?

16 **A** Yes.

17 **Q** Okay. I'm handing you Plaintiffs' Exhibit 416 -- actually  
18 let me put it up on the ELMO. Maybe that would be the easiest  
19 way to do it.

10:26:06

20 **A** Okay.

21 MR. GRAHAM: Your Honor, could I have the ELMO,  
22 please, sir?

23 Excuse me, Ellen?

24 THE COURT: Either one, either one can get it.

10:26:12

25 //

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1 BY MR. GRAHAM:

2 **Q** Okay. I'm showing you what's Bate's number EOMCS 00166212;  
3 and down here towards the bottom of the page, it says, "4-19,  
4 2009, 3:40 a.m., Sharon Sprayberry," in the address column,  
5 "Country Club, complaint, sky is lit up, why." This is the  
6 ExxonMobil complaint log. Is this a call you recall making to  
7 the ExxonMobil complex to complain about --

8 **A** Yes. And based upon the time of it, I remember clearly  
9 calling twice, two events that stand out where I know I called.  
10 One was an explosion, a loud boom. The windows, the glass in  
11 the windows shook; and then, of course, the sky was just lit up  
12 bright orange from all of the flaring. And in this case I think  
13 I said, "Why is the sky lit up?" or something to that -- words  
14 to that effect. So that could have been that particular  
15 incident.

16 Another was I remember -- I think it was late  
17 morning. I don't remember the date, but all the flares were  
18 going off. And there was a loud, very loud roaring. It sounded  
19 like a freight train at the front door, and all the flares that  
20 I could see, at least ten or 12 closest to me, were at full  
21 flame. They were smoking, black smoke. And this roar -- the  
22 sound I had not heard until that -- that event, and it was just  
23 unbelievable.

24 And it went on all that afternoon, all that  
25 night. The sun did not set. It was just lit up, you know,

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1 couldn't go to sleep because of the light. And then it went on  
2 all the next day, and then it went into the next night. And I  
3 think it stopped sometime in that second evening. So it was at  
4 least 36 hours. I -- I could have called on that, as well, you  
5 know.

10:28:50

6 Q You may have called?

7 A Again, the sky was lit up. So I don't know which was  
8 which, but I remember two incidents where I made at least calls  
9 about it.

10:29:00

10 Q Okay. I'll come right back to that event. Let me -- I'm  
11 showing you what is Plaintiffs' Exhibit 17 at ETSC 000441 which  
12 is a STEERS report from 4-19-2009. Is that the same date that's  
13 your reference in this complaint log from ExxonMobil?

14 A Yes.

10:29:38

15 Q And you were talking about an event that went on for days  
16 and the sun never set and the flaring continued?

17 A Yes.

18 Q Could you -- did you experience that from your home?

19 A Yes.

10:29:49

20 Q And did it concern you?

21 A Yes.

22 Q Why?

23 A I was just sure that half the city was going to explode. I  
24 couldn't believe the -- how loud it was and -- you know, I'm  
25 smart enough to know that's caused by pressure. And that was

10:30:03

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1 very, very frightening.

2 **Q** And did you contact any state agencies? Did you contact  
3 the TCEQ about any event?

10:30:30

4 **A** I did not contact the TCEQ, no. But I did decide that I  
5 would contact the EPA, and I -- you know, I would get online,  
6 and I would look and see where can I -- where can I be heard.  
7 And I found on EPA that we were in a certain region; and if you  
8 contacted that region, there was a place where you could say --  
9 you could ask what is going on or get some information.

10:30:51

10 **Q** And did you do that?

11 **A** And I did that.

12 **Q** And do you recall when you did that?

10:31:04

13 **A** I don't remember the dates when I did that, but I can  
14 assume -- I'm guessing now, but I believe in my mind that it  
15 must have been after that 36-hour event because that one really,  
16 really scared me.

17 **Q** You said you sent an e-mail to the EPA?

18 **A** I did send an e-mail to the EPA to ask what was going on,  
19 what had been released or some words to that effect.

10:31:25

20 **Q** And did they respond?

21 **A** Yes.

22 MR. RICE: I'm going to object, your Honor, as to  
23 hearsay as to the EPA e-mail that he's --

24 THE COURT: How do you get it in, Counsel?

10:31:35

25 MR. GRAHAM: Your Honor, this was not objected to. It

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1 was actually brought in at the deposition by the defense. It's  
2 a business record. It's also -- would fall under the residual  
3 rule.

4 THE COURT: What's the residual rule?

10:31:47 5 MR. GRAHAM: Actually, your Honor, at this point I was  
6 just going to refresh the witness's recollection.

7 THE COURT: Okay. Refresh the recollection. Okay.

8 MR. GRAHAM: I very well may offer it at a later time.

9 THE COURT: Refresh her memory then.

10:32:10 10 BY MR. GRAHAM:

11 Q All right. I'm handing you some e-mails. If you would,  
12 look those over. And when you've had a chance, let me know.

13 A Yes. This --

14 Q Let me ask -- I'll ask you a question.

10:32:38 15 A Yes.

16 Q And having looked at these e-mails, does it refresh your  
17 recollection as to when you e-mailed the EPA about this flaring  
18 event you described?

19 A Yes.

10:32:47 20 Q And when was it?

21 A It was 2011.

22 Q Let me hand you these again; and if you'll look them over,  
23 paying attention to when the e-mail was sent and to whom it was  
24 sent, don't -- I'm not asking you to read it. I'm just asking  
10:33:09 25 you to look at it.

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1 **A** Yes.

2 **Q** Okay. And having looked at that, do you now recall when  
3 you sent -- when this event occurred?

4 **A** Yes.

10:33:18 5 **Q** And when was it?

6 **A** February 15, 2011.

7 **Q** That's when you received an e-mail?

8 **A** That's when I sent my e-mail.

9 **Q** Okay. And, so, what did -- how did the EPA respond to your  
10:33:33 10 e-mail?

11 **A** They --

12 THE COURT: Not what they said. How did they  
13 generally respond?

14 THE WITNESS: They responded by sending a STEERS  
10:34:08 15 report, a link to a STEERS report.

16 BY MR. GRAHAM:

17 **Q** Did they send you a link to more than one STEERS report?

18 **A** Yes.

19 **Q** I'm going to show you Plaintiffs' Exhibit Number 16 which  
10:34:21 20 is a STEERS report for the ExxonMobil facility, dated February  
21 2, 2011, which describes a flaring event that occurred on  
22 February 2, 2011, and continued for about 18 hours. Is this --  
23 is this the STEERS event that coincides with the event you  
24 described?

10:35:03 25 **A** Yes.

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1 Q Inquiring to the EPA about?

2 A Yes.

3 Q And now I'm showing you Plaintiffs' Exhibit Number 17 which  
4 is a STEERS report dated February 2, 2011, with an event  
10:35:16 5 beginning at 12:13 a.m. and continuing until 7:00 p.m. on  
6 February 6, 2011. Does this also coincide with the time period  
7 you described the flaring event occurring?

8 A Yes.

9 MR. GRAHAM: Your Honor, I am going to -- I'm going to  
10:35:45 10 talk to the witness about these e-mails.

11 THE COURT: Okay. He's going to talk to her. We  
12 don't know yet. Have a seat. We don't know yet what's coming.

13 MR. GRAHAM: Okay.

14 BY MR. GRAHAM:

10:35:56 15 Q All right. I'm handing you what I am marking as  
16 Plaintiffs' Exhibit Number 615 and 616. Do you recognize --

17 MR. RICE: Mr. Graham, can I have a copy of those two  
18 or could you just tell me which is which, the dates?

19 MR. GRAHAM: Absolutely.

10:36:36 20 BY MR. GRAHAM:

21 Q And do you recognize these -- do you recognize what's been  
22 marked as Plaintiffs' Exhibit Number 615?

23 A Yes.

24 Q Go ahead and look through it.

10:37:00 25 Okay. Do you recognize Plaintiffs' Exhibit

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1 Number 616?

2 **A** Yes, I do.

3 **Q** Okay. And Plaintiffs' Exhibit Number 616?

4 **A** Yes.

10:37:17 5 **Q** And is that an e-mail that you -- is that -- does that  
6 contain the e-mail that you sent the EPA?

7 **A** Yes, it does.

8 **Q** And do you recall sending that e-mail?

9 **A** Yes.

10:37:29 10 **Q** And did you produce that document to counsel -- did you  
11 produce that to counsel for the Plaintiffs in this case?

12 **A** Yes.

13 **Q** Have you previously testified about that document in  
14 deposition?

10:37:56 15 **A** Yes.

16 **Q** And does it fairly and accurately -- is it a fair and  
17 accurate representation of the e-mail?

18 **A** Yes.

19 **Q** And where did you get the e-mail from?

10:38:05 20 **A** I received -- you mean the --

21 **Q** Where did you --

22 THE COURT: You said right now -- all I heard was she  
23 sent this e-mail. You're looking at her, what she sent or the  
24 response she got.

10:38:17 25 MR. GRAHAM: Excuse me.



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1 BY MR. GRAHAM:

2 Q Where did you -- did you -- did you print this e-mail out?

3 A From my home.

4 Q From -- and where in your home, from your computer?

10:38:25 5 A My home computer, yes.

6 Q And was this stored in your e-mails on your home computer?

7 A Yes.

8 Q And does it contain the EPA's response to your inquiry of  
9 what was occurring on February 2, 2011?

10:38:39 10 A Yes, it does.

11 MR. GRAHAM: All right. Your Honor, I'm going to  
12 offer Plaintiffs' Exhibits Number 615 and 616.

13 MR. RICE: Same objection, your Honor. They're both  
14 hearsay.

10:38:53 15 THE COURT: All right. How do you get it in, Counsel?

16 MR. GRAHAM: Your Honor, the portions that are a  
17 response from the EPA Region 6 Public Information Office is  
18 public -- it's public information which is an exception to the  
19 hearsay rule.

10:39:10 20 THE COURT: Which one? What are we looking at? I got  
21 it right here. I do this every time, by the way, just tell me.

22 MR. GRAHAM: I would say Rule 803(8).

23 THE COURT: 803 what?

24 MR. GRAHAM: (8).

10:39:37 25 THE COURT: What else? Is that it?

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1 MR. GRAHAM: I think it falls within the residual  
2 exception, Rule 807, as well and that it's more probative on the  
3 point for which it's being offered than any other evidence at  
4 hand.

10:39:57 5 THE COURT: Don't you have to give notice -- hang on a  
6 second -- of some sort under this rule? Yeah, (b). Yeah, I  
7 think there's a Subsection (b). Have you given them notice that  
8 you're offering this statement at trial?

9 MR. GRAHAM: No, your Honor.

10:40:17 10 THE COURT: All right. What's your objection?

11 MR. RICE: My objection, your Honor, is they're both  
12 hearsay. They're out-of-court statements made to --

13 THE COURT: Does it hurt you? You know, what the  
14 heck?

10:40:30 15 MR. RICE: No, sir.

16 THE COURT: Is it worth taking it up on this point?

17 MR. RICE: No, sir.

18 THE COURT: All right. Thank you. But for your --  
19 for the record, if you're objecting, overrule the objection.

10:40:38 20 It's admitted.

21 MR. GRAHAM: Thank you, your Honor.

22 BY MR. GRAHAM:

23 Q All right. Ms. Sprayberry --

24 THE COURT: They are admitted.

10:40:47 25 //

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1 BY MR. GRAHAM:

2 **Q** -- would you please read this portion of 616. I'll put it  
3 on the ELMO momentarily. I'll point it out for you.

4 All right. Plaintiffs' Exhibit 616 is an e-mail  
10:41:03 5 dated February 5, 2011, at 11:26 a.m. Could you please read  
6 this top paragraph into the record. Plaintiffs' 616.

7 **A** "I noticed this morning, February 2, 2011, at 9:00 a.m. the  
8 flares at the Baytown ExxonMobil refinery are lighting up the  
9 sky. What chemicals are they releasing into our air?"

10:41:32 10 **Q** Okay. And I'm showing you Plaintiffs' Exhibit 615 which  
11 appears to be the response from the EPA to your question; is  
12 that right?

13 **A** Yes.

14 **Q** And could you read this paragraph here which is on the  
10:41:50 15 bottom half of the page just below.

16 **A** "The information I gave you previously was for the olefins  
17 plant."

18 THE COURT: Hold it. Who is this? Is this the  
19 witness's statement or is it a response from the EPA itself?

10:42:04 20 MR. GRAHAM: Your Honor, this is a response from the  
21 EPA itself.

22 THE COURT: All right, go on.

23 THE WITNESS: "The information I gave you previously  
24 was for the olefins plant. It appears from the database that  
10:42:14 25 the refinery had several flares going off, as well. These

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1 flares would have emitted the typical list of organics and  
2 products of combustion. I have attached the report below.  
3 Looks like there were several separate causes of flaring at the  
4 refinery."

10:42:32 5 BY MR. GRAHAM:

6 **Q** Okay. And below there is a STEERS report that has been  
7 pasted into the body of the e-mail, right?

8 **A** Yes.

9 **Q** And it says that, here on the top of 068184, this is based  
10 on initial report.

10:42:48

11 THE COURT: Could you move that where we can get the  
12 whole thing on?

13 Okay.

14 BY MR. GRAHAM:

10:42:56 15 **Q** Right?

16 **A** Yes.

17 MR. GRAHAM: Okay. And let me finish this up quickly,  
18 your Honor.

19 BY MR. GRAHAM:

10:43:10 20 **Q** I showed you Plaintiffs' Exhibit 16 at ETSC 001351 which is  
21 a STEERS emission report. That's dated 2-2-2011, 1:16 a.m., and  
22 the event ended 2-2-2011 at 7:30 p.m.

23 THE COURT: Leave it there a second. Just give me a  
24 chance.

10:44:11 25 Okay.

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1 BY MR. GRAHAM:

2 **Q** Okay. And this is different than the STEERS event that was  
3 pasted into the body of the e-mail; is that right? At least  
4 let's look at the duration. The duration from the one in the  
5 body of the e-mail, same beginning, it started at the same time,  
6 1:16 a.m. on 2-2-2011, if you look here at the top of the page,  
7 correct?

8 **A** Yes.

9 **Q** But it says the event ended 2-3-2011?

10 THE COURT: Are the lights on? Yeah, the lights are  
11 on. Go on.

12 BY MR. GRAHAM:

13 **Q** It says the event ended on February 3, 2011 at 1:16 p.m.  
14 Do you see that?

15 **A** Yes.

16 **Q** And if we look at Plaintiffs' Exhibit Number 17 -- excuse  
17 me, Number 16, 16 at 001351, do you see that it has the same  
18 start time, 1:16 a.m. on February 2, 2011, but it ends at 7:30  
19 p.m., 2002 -- I mean 2011?

20 **A** Yes.

21 **Q** And this one is -- it doesn't say what it's based on. The  
22 previous one from the e-mails, Plaintiffs' Exhibit 65, said it  
23 was based on initial report?

24 **A** Yes.

25 THE COURT: All right, Counsel, a little summation.

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1 What's your position on this? What's the impact of what you  
2 just said?

3 MR. GRAHAM: Your Honor, there was -- I'm -- I guess  
4 the impact -- I was just going to point out that some --  
10:45:59 5 after -- or I was going to talk to the witness --

6 THE COURT: No. Talk to me. It's non-jury case.

7 MR. GRAHAM: After the fact, the event ended up being  
8 12 hours shorter than initially reported even though this e-mail  
9 from the EPA that sent her the link to the event was comprised  
10:46:16 10 fully two weeks after the event began. So later on when they  
11 amended the report --

12 THE COURT: Who is "they"?

13 MR. GRAHAM: Excuse me. Later on when ExxonMobil  
14 amended the report, it was shortened in duration.

10:46:29 15 THE COURT: Shorter in duration on the amended report?

16 MR. GRAHAM: That it was not a significant point.  
17 That was the point I was going to make, and I was going to go  
18 into the olefins plant next and show that it went on for a  
19 significant -- or significantly longer time period.

10:46:43 20 THE COURT: Okay.

21 BY MR. GRAHAM:

22 Q I'm showing you Plaintiffs' Exhibit 17 at 000481. This is  
23 a STEERS report from the olefins plant for an emissions event  
24 that began February 2, 2011, at 12:13 a.m. and ended February 6,  
10:47:04 25 2011, at 7:00 p.m. Does this coincide with the event you

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1 described e-mailing the EPA about?

2 **A** Yes.

3 **Q** And when you experienced this event, how many flares did  
4 you see going off?

10:47:20 5 **A** I didn't do an accurate count, but I would say I saw at  
6 least ten to twelve flares that I could see easily.

7 **Q** Okay. And in this Plaintiffs' Exhibit 17 from 000481  
8 through 000485, let's see how many flares are included in this  
9 report. Because we have Source 1 --

10:47:50 10 THE COURT: Do you want to center that, Counsel?  
11 Shift it over to get the whole thing in. Okay. If you shift  
12 the paper over, you don't have to zoom out.

13 MR. GRAHAM: Okay.

14 THE COURT: All right.

10:48:01 15 MR. GRAHAM: Excuse me.

16 BY MR. GRAHAM:

17 **Q** Source 3, it says, "BOPX flare, EPN number flare." Do you  
18 see that at the bottom of 000481?

19 **A** Yes.

10:48:13 20 **Q** And if you look at Source 8, it says on page 000483,  
21 "Primary flare, EPN Number Flare 1." Do you see that?

22 **A** Yes.

23 **Q** So that's a second flare in this -- in this STEERS report  
24 relating to the olefins report. If you look at 000484, Source

10:48:42 25 10, the secondary flare EPN Number Flare 2, that would be a

Sprayberry - Direct/Graham

1 third flare associated with the olefins plant, right?

2 **A** Yes.

3 **Q** If we go back to the first page of this STEERS report  
4 000481, it's described as a flaring event, right?

10:49:11 5 **A** Yes.

6 **Q** And let's just look at the first page of Plaintiffs'  
7 Exhibit Number 16 where we -- where we see the cause. Could you  
8 read the cause it says or just read the first couple of  
9 sentences of the cause, if you would.

10:49:25 10 **A** "Flaring at Flare Stack 25 due to control valve not opening  
11 which was caused by inclement weather. Flaring at Flare Stacks  
12 3, 4, 6, 17, and 20 was due to a fuel gas imbalance caused by  
13 inclement weather. Flaring from the alky plant was due to a  
14 frozen level instrumentation on the feed coalescer caused by  
10:49:51 15 inclement weather."

16 **Q** Okay. And would you read that next sentence, as well.

17 **A** "Emissions from Flare Stack 14 were caused when the pilots  
18 went out due to the inclement weather."

19 **Q** Okay. Do you see action taken, the second sentence

10:50:12 20 beginning with the emissions?

21 **A** "The emissions from Flare Stack 14 have ended when the  
22 pilots were relit."

23 **Q** Okay. I'm going to turn to page 14 which actually -- so  
24 looking at the first page, it looks like approximately eight

10:50:38 25 flares were involved at the -- at the olefins plant during this



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1 emission event, right?

2 **A** That's what the report indicates, yes.

3 **Q** And it said, I think, three at the refinery, so -- for a  
4 total of 11 or so going off at that time. Is that -- excuse  
10:50:55 5 me -- three at the olefins plant and eight at the refinery.

6 **MR. RICE:** I'm going to object to the leading and  
7 counsel testifying.

8 **THE COURT:** Overruled.

9 **BY MR. GRAHAM:**

10:51:04 10 **Q** Does that comport with your memory of the event?

11 **A** Yes.

12 **Q** Where did you observe all these flares from? Could you see  
13 them from your house?

14 **A** From my neighborhood. And, of course, then I would drive  
10:51:14 15 back -- when I say drive back, drive northeast about a mile into  
16 the center of town. And when I would have my car heading back  
17 toward the refinery, of course, again, you can see the flares  
18 from that vantage point quite well.

19 **Q** Okay. And you described a noise you called a roaring?

10:51:37 20 **A** Yes.

21 **Q** Is that what -- or what -- how did you initially notice  
22 this flaring event?

23 **A** Well, you could hear -- you could hear the sound from  
24 inside the house. I couldn't hear my television at all; and I  
10:51:49 25 had to say, "What is this?" And I -- you know, I went outside

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1 to see what I could see. And, of course, it was even louder;  
2 and then I could see all of the flares.

3 **Q** And were you by yourself in -- in your house?

4 **A** No. My mother was there with me. She lived with me at  
5 that time.

10:52:16

6 **Q** And, so, this flaring event went on for several days. When  
7 you got a response from the EPA, you think you called  
8 ExxonMobil; is that right?

9 **A** Yes.

10:52:25

10 **Q** During this flare event, could you see black smoke or any  
11 other sort of smoke coming from the flares?

12 **A** Oh, yes.

13 **Q** Was that something you saw --

14 **A** Regularly.

10:52:37

15 **Q** Not just during this flaring event?

16 **A** No.

17 **Q** Could you describe the type of smoke you would see coming  
18 from a flare?

19 **A** Black.

10:52:54

20 **Q** Have you ever noticed any sort of -- any other visible  
21 signs of air pollution from your house in the Baytown area? Is  
22 it hazy, is it smoggy, is it clear, is it --

23 **MR. RICE:** Object --

24 **THE COURT:** Overruled. It's leading.

10:53:07

25 **THE WITNESS:** Yes, I have. Hazy, smoggy, all of

Sprayberry - Direct/Graham

1 the -- all of that.

2 BY MR. GRAHAM:

3 **Q** And where do you see -- where do you see these things?

4 **A** Well, all around. You know, as I mentioned, when I drive  
10:53:20 5 doing my job with the school district, I drive around the  
6 perimeter of the refinery frequently into those neighbors where  
7 the schools are located. And that's where I would observe it.  
8 And, also, of course, in my neighborhood when I would get out  
9 and try to walk.

10:53:41 10 **Q** Okay. Could you -- I mean, this is an industrial area. Do  
11 you know where -- where do you attribute the haze originating  
12 from?

13 **A** From the refinery.

14 **Q** From which refinery?

10:53:51 15 **A** The Baytown ExxonMobil refinery.

16 **Q** Is there any particular reason why you think it was that  
17 refinery and not another facility in the area?

18 **A** Well, you can see the flares and the haze hanging right  
19 over that refinery. And then as the wind shifts, it simply  
10:54:11 20 moves out into the surrounding areas.

21 **Q** Okay. And earlier you talked about -- or actually does  
22 that concern you when you see this haze?

23 **A** Oh, absolutely.

24 **Q** Why does that concern you?

10:54:22 25 **A** Because I can't breathe.

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1 Q And earlier you talked about chemical smells in Baytown.  
2 Could you describe the sort of smells you would encounter?

3 A Well, it wasn't all the time, but occasionally it would be  
4 a chemical, sort of sulfur kind of smell.

10:54:41 5 Q Where would you encounter this smell?

6 A When I would be outdoors.

7 Q And what -- any particular part of town?

8 A Usually when I was at my home or in my neighborhood.

9 Q And did you encounter these smells always?

10:54:54 10 A No.

11 Q Did you ever notice when you were more likely to encounter  
12 smells?

13 A Yes. When the wind was blowing from Exxon toward me.

14 Q And when you smelled these smells, did they concern you?

10:55:11 15 A Yes.

16 Q Why did they concern you?

17 A Because I believed that, you know, I was going to be  
18 breathing in something that was toxic or harmful.

19 Q And do you know, based on looking at these STEERS reports,  
10:55:23 20 if ExxonMobil emits carcinogens into the atmosphere and the  
21 environment?

22 A Well, according to those reports, they do.

23 Q And which ones do you know particularly that are  
24 carcinogenic?

10:55:37 25 A I don't know very many, but I know benzene and butadiene,

Sprayberry - Direct/Graham

1 carbon monoxide.

2 **Q** Currently, do you -- how long did you live in Baytown and  
3 where did you currently -- how long did you live in Baytown the  
4 second time?

10:55:50 5 **A** The second time I was there from 2004 until 2012.

6 THE COURT: Where are you residing now?

7 THE WITNESS: McGregor, Texas.

8 BY MR. GRAHAM:

9 **Q** Why did you move?

10:56:01 10 **A** I moved to get to clean air.

11 **Q** And did your mom move with you that was living with you?

12 **A** Yes.

13 **Q** And the respiratory issues that you described while living  
14 in Baytown earlier, did those continue once you moved to

10:56:23 15 McGregor?

16 **A** No.

17 **Q** How soon after you moved did your respiratory function  
18 change?

19 **A** Within a few weeks.

10:56:30 20 THE COURT: Where is McGregor?

21 THE WITNESS: It's near Waco.

22 THE COURT: Okay.

23 THE WITNESS: No. Within a few weeks I noticed a  
24 difference in my breathing and my mother's breathing, as well.

10:56:37 25 //

Sprayberry - Direct/Graham

1 BY MR. GRAHAM:

2 Q Okay. So, now that you live in McGregor and you're not  
3 living in Baytown, do you -- do you still plan to travel to  
4 Baytown?

10:56:55 5 A Well, I still have friends that live in Baytown; and  
6 there's a connection that I still have with the school district  
7 and events that occur there that want -- make me want to come  
8 back and see them and attend those events.

9 Q And where do you consider your hometown?

10:57:21 10 A Baytown.

11 Q And are you likely to go and visit friends in Baytown  
12 currently?

13 A Probably not because last time I was there -- I think it  
14 was in March -- I stayed a few hours, and I could immediately  
10:57:31 15 tell the difference in my breathing. And I, you know, cut my  
16 visit a little short and went back.

17 Q And you could experience a little twinge in your breathing  
18 from what?

19 A From the air, the air quality.

10:57:44 20 Q And if Exxon emitted fewer pollutants into the environment,  
21 would you be more likely to return to Baytown?

22 A Yes. I would have retired there.

23 MR. GRAHAM: Pass the witness, your Honor.

24 THE COURT: Thank you.

10:58:20 25 MR. RICE: May I proceed, your Honor?

## Sprayberry - Cross/Rice

1 THE COURT: You may.

2 CROSS EXAMINATION

3 BY MR. RICE:

4 Q Good morning, Ms. Sprayberry.

10:58:23 5 A Good morning.

6 MR. RICE: And, your Honor, if we could have the  
7 screen, please, the computer.

8 THE COURT: Wait. No, you're the -- oh.

9 BY MR. RICE:

10:58:36 10 Q Okay. Now, Ms. Sprayberry, you testified that these events  
11 that you experienced you experienced while you were living in  
12 Baytown at St. Andrews Drive?

13 A Yes.

14 Q And that, you testified, was approximately one mile from  
10:59:00 15 the Baytown Complex?

16 A Yes.

17 Q But you don't actually live in Baytown today, right?

18 A That's correct.

19 Q You lived at this address from 2004 until the summer of  
10:59:10 20 2012?

21 A That's correct.

22 Q Okay.

23 MR. RICE: Next slide, please, Hien.

24 BY MR. RICE:

10:59:14 25 Q And in the summer of 2012, you moved to McGregor, and

## Sprayberry - Cross/Rice

1 McGregor is just west of Waco, correct?

2 **A** That is correct.

3 **Q** And you would agree with me, wouldn't you, ma'am, that

4 McGregor is more than 200 miles from Baytown?

10:59:30 5 **A** Yes.

6 **Q** And you've lived in McGregor since May of 2012; is that  
7 correct?

8 **A** June of 2012, yes.

9 **Q** So, over a year and a half?

10:59:42 10 **A** Yes.

11 **Q** And you testified that you first moved away from Baytown in  
12 1968; is that correct?

13 **A** Yes.

14 **Q** And you went to Waco to college?

10:59:55 15 **A** Yes.

16 **Q** And then you entered the Navy and moved around the country?

17 **A** Yes.

18 **Q** In fact, I think I recall that you testified at one point  
19 that you lived in Florida and Rhode Island and California and  
20 Louisiana?

11:00:10

21 **A** And Virginia.

22 **Q** Virginia and then Corpus Christi. So you moved around the  
23 country?

24 **A** Yes.

11:00:16 25 **Q** And then you moved back to Baytown in 2004. And so your



Sprayberry - Cross/Rice

1 last tour in Baytown was eight years approximately, correct?

2 **A** Yes.

3 **Q** So if my math is right, you lived in Baytown a total of 26  
4 years, including your childhood?

11:00:31 5 **A** Uh-huh.

6 **Q** And you've lived outside of Baytown, in fact, outside of  
7 Texas for nearly 39 years; is that correct?

8 **A** I assume the math is correct, yes.

9 **Q** So you've, in fact, lived other places other than Baytown  
10 for more years than you've actually lived in Baytown?

11 **A** That is correct.

12 **Q** You mentioned that you have intentions of returning to  
13 Baytown to see friends and attend events?

14 **A** Uh-huh.

11:01:05 15 **Q** The last time you did that was March of last year?

16 **A** Yes.

17 **Q** So almost a year ago?

18 **A** Yes.

19 **Q** Ms. Sprayberry, you don't have any intention of ever going  
11:01:13 20 back to Baytown to permanently reside, do you?

21 **A** Not unless the conditions changed.

22 **Q** Now, you've been a member of Sierra Club since 2010; is  
23 that right?

24 **A** Yes, sir.

11:01:42 25 **MR. RICE:** Can you bring up the Plaintiffs' 344,

## Sprayberry - Cross/Rice

1 please?

2 BY MR. RICE:

3 **Q** Okay. Now --

4 MR. RICE: And, Hien, if you could, just bring out  
5 this top part.

11:01:50

6 BY MR. RICE:

7 **Q** Ms. Sprayberry, do you recognize this Plaintiffs' Exhibit  
8 344 -- and I will just tell you that this is what the Plaintiffs  
9 produced to us to demonstrate your membership in the Sierra  
10 Club.

11:02:05

11 **A** Yes, that looks familiar.

12 **Q** And that's your name, of course, Sharon Sprayberry, right?

13 **A** Yes.

14 **Q** And this is your current address, correct, Silver Spur  
15 Trail, McGregor, Texas?

11:02:16

16 **A** Yes.

17 MR. RICE: Okay, Hien. If you'll go down to the  
18 highlighted area.

19 BY MR. RICE:

20 **Q** Now, according to the Sierra Club's records, you joined the  
21 Sierra Club or were added as a member on July 19, 2010, and that  
22 comports with what you said earlier about the time frame that  
23 you joined?

11:02:22

24 **A** Sure.

25 **Q** Now, that's also about the same time that you first come to

11:02:38

## Sprayberry - Cross/Rice

1 learn about this lawsuit, right?

2 **A** No. What occurred was when I became -- when I did some  
3 research on the organizations -- and I think I talked about that  
4 a little bit earlier -- I found Environment Texas, that  
5 organization. And I had a conversation with Luke Metzger, and  
6 he told me of the work that was being done in this area. And  
7 then when I decided that this was an organization that was going  
8 to support cleaner air, then I joined the Sierra Club.

11:03:10

9 **Q** Right. When you -- exactly. When you spoke to  
10 Mr. Metzger, he informed you about this lawsuit, right?

11:03:34

11 **A** Yes, he did.

12 **Q** And he invited you to participate in the lawsuit?

13 **A** Yes, he did.

14 **Q** To be a part of it?

11:03:45

15 And it was shortly after that that you decided,  
16 "I'm going to participate and join the Sierra Club"?

17 **A** Yes.

18 **Q** So it was your understanding when you -- when you spoke  
19 with Mr. Metzger that this lawsuit was already in the works?

11:04:03

20 **A** Yes. In fact, I had -- I said, "Why aren't you doing  
21 anything," basically. I'm paraphrasing badly but words to that  
22 effect; and he said, "I thought we were."

23 **Q** Right. And did you -- did he explain to you that they had  
24 already provided notice to these Defendants almost a year before  
25 you joined that they were intending to sue Exxon? Did you know

11:04:20

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1 that?

2 **A** No, I did not know that.

3 **Q** Did you -- you didn't know that they had -- these  
4 Plaintiffs had already given notice as they're required to under  
5 the law on November 30, 2009, that they intended to sue Exxon?

6 **A** I did not know that.

7 **Q** Did you know that in order to sue Exxon these Plaintiff  
8 groups have to have members?

9 **A** Well, I would assume they have to have members.

10 **Q** Right, right.

11 THE COURT: Members or members that are in the -- in a  
12 class or what? You just said they have to have members.

13 BY MR. RICE:

14 **Q** They have to have members in their group that are claiming  
15 some kind of effect from these emission events that they're  
16 intending to sue on. Did you know that?

17 MR. GRAHAM: Your Honor, I'm going to object to the --  
18 calls for a legal conclusion. The law speaks for itself and  
19 it's --

20 THE COURT: I'm not going to consider that as a legal  
21 question. I understand your objection. I'm not taking it as a  
22 legal conclusion.

23 Overruled.

24 THE WITNESS: No.

25 //

Sprayberry - Cross/Rice

1 BY MR. RICE:

2 Q You didn't know that?

3 A No.

4 Q And, in fact, ma'am, did they also -- were you also aware

11:05:34 5 that they gave notice to these Exxon Defendants a second time in  
6 July of 2010 on July 2, 2010? Were you aware of that?

7 A When you say gave notice --

8 Q Right, right. We talked about the fact that these

9 Plaintiff organizations have to provide notice to Defendants

11:05:56 10 that they intend to sue them based on their membership -- their  
11 members and these emission events?

12 A No, I did not know that.

13 Q You didn't know that, okay. And it was shortly after this  
14 lawsuit was filed that you were told by these Plaintiffs that

11:06:19 15 you would be a good witness in this case, right?

16 A No.

17 MR. GRAHAM: Your Honor, I'm going to --

18 THE COURT: She said no.

19 BY MR. RICE:

11:06:26 20 Q Now, I want to -- Ms. Sprayberry, I want to talk about some  
21 of these specific emission events that you -- that you talked  
22 about this morning. And I think that you identified two  
23 specific events that you had either -- that you recall that you  
24 talked to Exxon about or that you talked to TCEQ about.

11:06:47 25 MR. RICE: And, Judge, if I may.

## Sprayberry - Cross/Rice

1 MR. GRAHAM: Your Honor, I just want to point out for  
2 the Court that I think she discussed --

3 THE COURT: Say again.

4 MR. GRAHAM: I think she discussed three specific  
11:07:02 5 events.

6 THE COURT: All right. Mr. Rice, you heard the  
7 objection, right?

8 MR. RICE: I did, Judge; and if I misspoke, I  
9 apologize. I'm going to attempt to identify each of the events  
11:07:20 10 that Ms. Sprayberry testified to; and if there were three, I  
11 hope we're able to identify them.

12 BY MR. RICE:

13 Q Now, I think that you testified to an event --

14 THE COURT: Angle it a little bit.

11:07:31 15 MR. RICE: And, your Honor, I think that we can go  
16 back to the ELMO at this time if you don't mind.

17 THE COURT: Okay.

18 BY MR. RICE:

19 Q I think you testified to this event from Plaintiffs'  
11:07:49 20 Exhibit 615 that occurred on February 2, 2011, right?

21 A Yes.

22 Q Now, was there one event on that day that you recall or was  
23 there two?

24 A There was one event that I recall.

11:08:17 25 Q Did you call Exxon that day about this event?

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1 **A** I don't remember if this was one of the calls.

2 **Q** Did you call TCEQ?

3 **A** No.

4 **Q** Now, you also testified to an event that I believe occurred  
5 on April 19, 2009, correct?

6 **A** Yes.

7 **Q** Because that was the event that you actually called Exxon  
8 about, right?

9 **A** That's correct.

10 **Q** Because Mr. Graham showed you the Plaintiffs' exhibit that  
11 has your name and address and your -- for that day --

12 **A** Yes.

13 **Q** -- where you called Exxon. Did you ever call TCEQ about  
14 that particular event?

15 **A** No.

16 **Q** Did you ever contact anybody at EPA about that particular  
17 event?

18 **A** On the 19th, no.

19 **Q** In fact, isn't it true, ma'am, you've never called TCEQ  
20 directly about any of these concerns?

21 **A** That's correct.

22 **Q** And the only communication that you've had with EPA was  
23 this series of e-mails that you exchanged with one of the Region  
24 6 administrators, correct?

25 **A** That is correct.

## Sprayberry - Cross/Rice

1 Q I think you also testified, ma'am, there was another time  
2 you called Exxon because you heard a loud boom; is that right?

3 A Yes.

4 Q Do you recall when that was?

11:09:49 5 A I do not. I've tried to remember, but I would -- I would  
6 estimate it was probably in 2009.

7 Q But you don't recall a specific month or a specific day?

8 A No, I'm sorry, I don't.

9 Q Now, when you called Exxon, they told you that there wasn't  
11:10:11 10 any event on that day, right?

11 A Yes.

12 Q They told you this explosion or this loud boom that you  
13 heard didn't occur at Exxon at Baytown, right?

14 A That's correct.

11:10:23 15 Q And I take it that you're not certain that you believe  
16 that?

17 A I do not believe that.

18 Q But you don't have a way of confirming one way or the  
19 other, right?

11:10:34 20 A No, I don't.

21 Q Now, ma'am, are there any other specific dates that you  
22 recall when you experienced what you thought was an emission  
23 event at the Baytown Exxon complex?

24 A Yes, there were many events that I experienced. Those are  
11:10:53 25 the two that -- where I did something.



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1 Q Okay. Is it fair to say that these are the only two that  
2 you specifically can identify by date?

3 A Yes.

4 Q And each of these -- this February 2nd, an event that you  
5 testified to, did you call Exxon?

6 A I don't know if I called on that event. I can't be sure  
7 that was one of the calls.

8 Q But you e-mailed the EPA?

9 A Yes.

10 Q And they returned your e-mail, right?

11 A Yes.

12 Q Pretty quickly?

13 A Well, fairly quickly, yes.

14 Q And they provided you the information that Exxon had  
15 reported?

16 A Yes.

17 Q And at this time on February 2, 2011, you were already on  
18 their team, right, and this was --

19 A Yes.

20 Q You had joined --

21 A Yes, that's correct.

22 MR. GRAHAM: I object to the characterization.

23 THE COURT: She said yes.

24 BY MR. RICE:

25 Q You had joined the Sierra Club, true?

## Sprayberry - Cross/Rice

1 **A** Yes.

2 **Q** You had been told about the lawsuit?

3 **A** Yes.

4 **Q** You had been asked to participate in the lawsuit?

11:12:36 5 **A** Yes.

6 **Q** And you -- and by this time you had been told or had been  
7 notified that you'd be a witness in this case, right?

8 **A** No.

9 **Q** Not by February 2, 2011?

11:12:48 10 **A** I really don't know. I don't know if I had been told by  
11 that date.

12 **Q** Now, Ms. Sprayberry, you understand that Exxon operates  
13 under permits, right? You understand that?

14 **A** Yes.

11:13:24 15 **Q** You understand that they are permitted to operate flares  
16 for certain purposes?

17 **A** Yes.

18 **Q** So you understand that not every time that you see a flare  
19 going on that it's some unauthorized emission?

11:13:36 20 **A** Yes, I know that.

21 **Q** I want to move to some of these symptoms and health issues  
22 that you testified to --

23 **A** Okay.

24 **Q** -- that you attribute to some of these -- the air quality  
11:14:02 25 in Baytown.

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1 Now, you say that you have generally respiratory  
2 issues that you attribute to the emissions from Exxon's  
3 facility; is that true?

4 **A** Yes.

11:14:15 5 **Q** Okay. And I think that you also testified that these same  
6 respiratory issues really started for you in 1992 when you moved  
7 to Corpus Christi, right?

8 **A** That's correct. It was a reoccurrence at that time.

9 **Q** Right. Well, a reoccurrence because you actually were  
11:14:34 10 diagnosed with asthma when you were three months old?

11 **A** That's correct.

12 **Q** And these symptoms came back or were exacerbated during  
13 your time in Corpus Christi?

14 **A** Yes.

11:14:55 15 **Q** While you still lived in Baytown, you saw the physician  
16 regularly, did you not?

17 **A** I did.

18 MR. RICE: Your Honor, if I could have the -- never  
19 mind. I see that it's on.

11:15:04 20 THE COURT: Repeat the question. While you were in  
21 where?

22 MR. RICE: While she was in Baytown, she regularly saw  
23 her physician.

24 THE COURT: During what time frame?

11:15:14 25 //

Sprayberry - Cross/Rice

1 BY MR. RICE:

2 Q From 2004 to 2012; is that correct?

3 A Yes.

4 Q Because you moved to Baytown in August of 2004, if I'm not  
11:15:21 5 mistaken?

6 A I believe it was July, but yes.

7 Q July of 2004.

8 Now, earlier you testified and you told  
9 Mr. Graham that these respiratory issues that you've had only  
11:15:39 10 got worse when you came to Baytown; is that right?

11 A Yes, slightly worse. You know, they were -- they were  
12 pretty bad in Corpus Christi, but I guess they continued and  
13 then over time they got worse near the end of my time in  
14 Baytown, that second time in Baytown.

11:16:00 15 Q Okay. So it didn't get worse when you initially got to  
16 Baytown; it only got worse during the end of your time at  
17 Baytown?

18 A Middle to end.

19 THE COURT: Were you -- you were stationed in Baytown,  
11:16:13 20 and then you chose to remain there; is that correct?

21 THE WITNESS: No. I was stationed in Corpus  
22 Christi --

23 THE COURT: Corpus Christi.

24 THE WITNESS: -- and I decided to remain there for  
11:16:20 25 awhile.

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1 THE COURT: Okay. I'm sorry. Go on. I got you.

2 BY MR. RICE:

3 Q All right. Well, I want to show you some documents that  
4 you provided to us at your deposition; and I believe these are  
11:16:38 5 your physician's notes from your various doctor's visits while  
6 you lived in Baytown, correct?

7 A Yes.

8 Q So we can see up here on September 8, 2004, looks like it  
9 was your initial visit to Baytown -- or to your doctor in  
11:16:54 10 Baytown?

11 MR. GRAHAM: Your Honor, may I interrupt? Is this an  
12 exhibit? Is this -- I'm going object to him reading from a  
13 document that's not in evidence.

14 MR. RICE: Your Honor, I'm using this to -- for  
11:17:04 15 rebuttal purposes, and I'm just showing it directly to refresh  
16 her recollection.

17 THE COURT: Sustain the objection.

18 Just take it down and talk to her and then if you  
19 have to enter it into evidence, I'll consider it.

11:17:16 20 BY MR. RICE:

21 Q Ma'am, isn't it true that while you were in Baytown for  
22 this eight-year period, each time that you visited your  
23 physician you denied having shortness of breath?

24 A No, that's not true.

11:17:29 25 Q That's not true?

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1 **A** No.

2 **Q** Well, isn't it true, ma'am, that when you arrived in  
3 Baytown in 2004 you were -- well, let's do it this way. I think  
4 you testified on direct that at some point during your time in  
5 Baytown your physician had to increase your respiratory  
6 medicine; is that correct?

7 **A** That's correct.

8 **Q** But, in fact, isn't it true that you were taking the same  
9 dosage of this respiratory medicine which is Singulair, right?

10 **A** Singulair, yes.

11 **Q** When you arrived in Baytown in 2004, you were on ten  
12 milligrams?

13 **A** No. I think I was on five.

14 **Q** So, Dr. Hays, is it?

15 **A** Yes.

16 **Q** So Dr. Hays's notes on your first visit would be incorrect?

17 **A** No, I'm sure that was accurate but later on --

18 THE COURT: Wait a second. I don't understand the  
19 question because she said it was increased to ten. All right.

20 But you're saying what -- I don't follow. Did she come in on  
21 ten or did he increase it to ten or what? I don't follow it.

22 MR. RICE: I think, Judge, that she testified that she  
23 was on five milligrams of Singulair when she arrived in Baytown.

24 THE COURT: Right. That's what I recall.

25 MR. RICE: And that she earlier testified that at some

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1 point during her time at Baytown, the doctor increased it to ten  
2 milligrams.

3 THE COURT: I heard that.

4 MR. RICE: And, in fact, according to her own doctor's  
11:18:52 5 records, she was on ten milligrams at her first visit. At some  
6 point she may have went to five milligrams; but when he actually  
7 increased it, several years later, it went back up to ten  
8 milligrams. And I'm just --

9 THE COURT: Is that correct, ma'am?

11:19:06 10 THE WITNESS: I remember it differently. I know --

11 THE COURT: Keep going.

12 BY MR. RICE:

13 Q Well, let me ask you this, ma'am: I understand that you  
14 may remember things differently, but would you agree that  
11:19:18 15 Dr. Hays's notes would be most accurate in terms of what your  
16 medication dosage was?

17 MR. GRAHAM: And, your Honor, I'm going to object  
18 to -- it's calling for speculation.

19 THE COURT: Overruled.

11:19:33 20 THE WITNESS: The point --

21 THE COURT: No, excuse me. I'm -- it's a yes-or-no  
22 answer. If you -- by the way, if you can't answer a question  
23 yes or no, so state and he will have to rephrase it. Okay.

24 THE WITNESS: I can't answer that yes or no.

11:19:46 25 //

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1 BY MR. RICE:

2 **Q** Do you have any reason to dispute what Dr. Hays has in  
3 his -- in your records?

4 MR. GRAHAM: Same objection.

11:19:54 5 THE COURT: Overruled. It may be now able to be used  
6 as rebuttal. It may be. We're not there yet, but I want to see  
7 what her answers are. So overruled at this time, Counsel. Ask  
8 your question again.

9 BY MR. RICE:

11:20:10 10 **Q** Yes, ma'am. I'm just asking: Do you dispute the accuracy  
11 of Dr. Hays's medical notes for your file?

12 **A** I don't know what he's saying.

13 MR. GRAHAM: Your Honor, I'd object and ask that  
14 counsel could at least show her the document.

11:20:24 15 THE COURT: Yes, show to it her, please.

16 MR. RICE: Be happy to.

17 THE WITNESS: Do you want me to read all of it or --

18 BY MR. RICE:

19 **Q** No, familiarize yourself with it.

11:20:54 20 **A** Okay.

21 **Q** Ma'am, do you recognize these documents?

22 **A** I've never seen them.

23 **Q** You've never seen these documents?

24 **A** Never. No, I don't -- he doesn't show --

11:21:41 25 **Q** You don't recall providing these to Mr. Kratka and



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1 Mr. Nicholas?

2 **A** They did not come through me, no.

3 **Q** Did you know these were produced to us in this litigation?

4 **A** Yes, I knew that.

11:21:53 5 **Q** Okay.

6 **A** But the doctor takes notes, and he does not show his notes  
7 to the patients normally.

8 **Q** Right. I understand, but you -- but you agree that these  
9 would be Dr. Hays's notes?

11:22:04 10 **A** Oh, yes, I don't dispute that.

11 **Q** And you agree that these were produced in this litigation?

12 **A** Yes.

13 **Q** By your -- by these Plaintiffs' lawyers?

14 **A** Sure.

11:22:16 15 MR. RICE: Now, Judge, at this time I'm going to  
16 admit -- offer these DX530 into evidence.

17 THE COURT: How? Why? Why? How does it come in?  
18 Have you identified that before as an exhibit for trial?

19 MR. GRAHAM: No, sir, it's --

11:22:30 20 THE COURT: All right. Then how do you get it in?

21 MR. RICE: These are medical records that these  
22 Plaintiffs produced. This witness has testified as to her  
23 medical issues and health concerns and tried to link it up with  
24 these emissions events that are at issue in this case. And  
11:22:48 25 these documents are used to -- for rebuttal purposes and

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1 impeachment of her direct testimony.

2 THE COURT: All right. What's your response?

3 MR. GRAHAM: Your Honor, I'm going to object that,  
4 one, foundation is lacking; two, these are hearsay. He  
11:23:03 5 attempted to refresh the witness's recollection to no avail.  
6 She hasn't seen these documents. She can't authenticate these  
7 documents.

8 THE COURT: It's a non-jury matter. Okay. I'm going  
9 to ask you, Mr. Rice, is this a surprise? That's different  
11:23:21 10 testimony. Is it a surprise?

11 MR. RICE: A surprise to her or surprise --

12 THE COURT: No, to you.

13 MR. RICE: It's not a surprise to me because I've had  
14 the records, your Honor.

11:23:38 15 Your Honor, at her -- I can't say that I can't --

16 THE COURT: Hold it, hold it. We're going to take a  
17 break anyhow. It's 11:24 right now. We'll take a 15-minute  
18 break and get back in. If you really need it in, give me the  
19 reasons how it gets in; otherwise, I get the message.

11:23:56 20 All right, we're going to take a break.

21 (Court recessed at 11:23 a.m.)

22 (Court resumed at 11:43 a.m.)

23 MR. GRAHAM: Your Honor, may we interrupt?

24 THE COURT: Yes, sir.

11:43:56 25 MR. GRAHAM: We're going to withdraw our objection.

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1 Our concern was potential embarrassment, but we've discussed it;  
2 and as long as it's kept off of the overhead and put in the --

3 THE COURT: Sure. What exhibit number?

4 MR. RICE: Exhibit DX530. Defendants' 530.

11:44:12 5 THE COURT: 530. If necessary, you want us to seal  
6 it?

7 MR. GRAHAM: Yes, your Honor, if it could remain  
8 confidential.

9 THE COURT: Ellen, if you could, mark that one  
11:44:20 10 confidential.

11 MR. GRAHAM: Okay.

12 THE COURT: Be glad to. All right, Mr. Graham, it  
13 will be under seal.

14 MR. GRAHAM: Thank you, your Honor.

11:44:34 15 BY MR. RICE:

16 Q I'll give that back to you, Ms. Sprayberry.

17 And, your Honor, what we've visited about is not  
18 displaying the exhibits on the ELMO. So I'm getting a copy for  
19 the Court at this moment.

11:44:53 20 THE COURT: Okay. Let's go off the record for a  
21 moment.

22 (Discussion off the record.)

23 MR. RICE: Your Honor, I just handed up to you what we  
24 marked as Defense Exhibit 530.

11:47:31 25 THE COURT: Okay, thank you.

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1 BY MR. RICE:

2 Q Do you have that in front of you, Ms. Sprayberry?

3 A I do.

4 Q And so the first record on this first page is dated

11:47:40 5 September 8, 2004; is that correct?

6 A Yes.

7 Q And about -- and to the best of your recollection, was this  
8 the first -- your first doctor visit with Dr. Hays in Baytown?

9 A It appears to be, yes.

11:47:53 10 Q And about halfway down that paragraph under "medicines,"  
11 there's a line entry that says, "Singulair, 10 milligrams per  
12 day," correct?

13 A Yes.

14 Q And do you recall that when you first moved to Baytown, you  
11:48:09 15 were taking ten milligrams of Singulair?

16 A I did not recall that it was ten.

17 Q Were you -- you were taking the Singulair while you were in  
18 Corpus Christi, right?

19 A Yes, it was prescribed there.

11:48:21 20 Q And then about three-quarters of the way down under exam,  
21 there's a line entry that says, "Lungs are clear." Do you see  
22 that?

23 A Yes.

24 Q Now, it looks like the next visit was in March, on March  
11:48:36 25 22, 2005; is that correct?

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1 **A** Yes.

2 **Q** Do you recall that to be the second visit to Dr. Hays?

3 **A** The date is about right, yes.

4 **Q** Now, the second sentence there says, "She denies any chest  
11:48:49 5 pain or shortness of breath." Do you see that?

6 **A** Yes, I do.

7 **Q** Do you recall telling Dr. Hays that you didn't have any  
8 shortness of breath?

9 **A** Not on Singulair.

11:49:03 10 **Q** So the third entry is August 15, 2007; is that right?  
11 That's on the second page.

12 **A** Yes.

13 **Q** So this -- these dates comport with your testimony that you  
14 were going regularly about every six months, right?

11:49:19 15 **A** Yes.

16 **Q** And then on that date on the third line over, it says,  
17 "Singulair, ten milligrams a day"?

18 **A** Yes.

19 **Q** No reason to dispute that that was the dosage you were  
11:49:29 20 taking at the time, right?

21 **A** I guess not, no.

22 **Q** And then under "exam," again, we find the notation, "Lungs  
23 are clear." It appears to me that it's a spelling error,  
24 l-u-n-d-s, but I'm certain that probably means lungs are clear,  
11:49:46 25 not lunds (phonetic spelling) are clear.

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1 **A** Yes.

2 **Q** Do you agree with that?

3 **A** Yes.

4 **Q** Now, if you turn to the third page, we get to May of 2008;

11:50:00 5 and we'll notice under the exam on the first line that's not  
6 redacted, it says, "Lungs are clear"?

7 **A** Yes.

8 **Q** And then under impression, he makes a notation of your  
9 medication again where he says, "Singulair, five milligrams,

11:50:14 10 chewable, once a day." Do you recall -- do you recall your  
11 Singulair dosage being reduced by Dr. Hays at some point?

12 **A** At one point it was at five, and this must have been it.

13 **Q** Now, your next visit after that is November 11, 2008,  
14 right?

11:50:34 15 **A** Yes.

16 **Q** And again, Dr. Hays's notes says, "She denies any chest  
17 pain or breathing trouble." Do you recall -- do you recall  
18 that?

19 **A** Yes.

11:50:44 20 **Q** And, in fact, if you go over to -- you had a visit in July  
21 of 2009 and we flip over to the fourth page and we come to  
22 January 20, 2010.

23 THE COURT: Of which one? Which one are we looking  
24 at?

11:51:03 25 MR. RICE: I'm sorry, your Honor. We're looking at

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1 page --

2 THE COURT: I'm on -- correct, the January?

3 MR. RICE: The January 20, 2010. Give me just one  
4 moment, Judge.

11:51:28 5 BY MR. RICE:

6 Q Okay. January 20, 2010, "The patient comes in today and is  
7 doing fine." Do you see that notation?

8 A Yes, I do.

9 Q And then the next line after the redacted portion is that  
11:51:42 10 she also continues on Singulair, correct?

11 A Correct.

12 Q Okay. Now, July 28, 2010, is the next entry; and in the  
13 first line it says, "She denies any chest pain or shortness of  
14 breath." Do you see that?

11:52:00 15 A Yes.

16 Q Do you recall telling your doctor on that day that you  
17 don't have any chest pain or shortness of breath?

18 A I don't remember what I actually said, but --

19 Q Right, I understand. And he has noted there that Singulair  
11:52:14 20 is the medication. And then he says, "I will increase her  
21 Singulair to ten milligrams a day as she is having some allergic  
22 symptoms." Do you see that?

23 A Yes.

24 Q Do you recall that?

11:52:25 25 A I do recall that he raised it to ten.

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1 Q Okay. And that was on July 28th, 2010, correct?

2 A Yes.

3 Q Which is almost -- almost six years after you moved back to  
4 Baytown?

11:52:41 5 A Right.

6 Q And so after that visit, it looks like your next two  
7 visits -- on the fifth page, your Honor, March 1, 2011 -- again,  
8 we see that the doctor is noting that the patient denies chest  
9 pain or shortness of breath?

11:52:58 10 A Uh-huh.

11 Q And then, again, the final record -- well, the next to the  
12 final record, the final record on that page, September 13, 2011,  
13 "Again, the patient is denying chest pain and shortness of  
14 breath," correct?

11:53:15 15 A That's correct.

16 Q I want to -- now, other than these respiratory issues and  
17 the labored breathing and the shortness of breath that you  
18 testified to earlier when Mr. Graham was questioning you, you  
19 don't have any other medical or physical conditions that you  
20 attribute to anything that ExxonMobil has done, right?

11:53:49

21 A That's correct.

22 Q And we know from your earlier testimony that you were  
23 diagnosed pretty young as a -- with asthma, right?

24 A Yes.

11:54:02 25 Q Three months of age?



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1 **A** Yes.

2 **Q** And your father was a smoker, correct?

3 **A** He did smoke, yes.

4 **Q** Smoked all his life?

11:54:14 5 **A** Yes.

6 **Q** I just have a few more questions for you, ma'am, and I just  
7 want to clear up our events that you recall that you have  
8 knowledge of, okay.

9 Now, Mr. Graham showed you Plaintiffs' 416 which  
10 indicated that you had called Exxon on April 19, 2009, correct?

11 **A** Yes.

12 **Q** And that's the date that we have up there.

13 MR. RICE: And, Hien, if we can bring up that  
14 Defendants' 005.

11:54:46 15 I think, Judge, we'll need to go over to the  
16 computer, please.

17 If you'll just bring up the highlighted portion,  
18 Hien, please.

19 BY MR. RICE:

11:55:04 20 **Q** Now, this was an event that Exxon reported on April 19,  
21 2009; and you see on that left-hand column, the large column,  
22 that there's a number there, 122984?

23 **A** Yes.

24 **Q** I'm going to represent to you that that's the STEERS  
11:55:23 25 number. There's been a lot of talk about STEERS numbers in this

Sprayberry - Cross/Rice

1 case. That's the STEERS number that relates to the event  
2 that -- at the olefins plant that Exxon reported on April 19,  
3 2009. And April 19, 2009, corresponds with the time that you  
4 called Exxon about an emissions event at the olefins plant,  
5 correct?

11:55:46

6 **A** Yes.

7 **Q** And that STEERS number is 122984, correct?

8 **A** Yes.

9 **Q** Okay, thank you.

11:56:01

10 MR. RICE: Thank you, Hien.

11 Judge, now, if I can go back to the ELMO, please.

12 BY MR. RICE:

13 **Q** Mr. Graham showed you a couple of STEERS reports from  
14 February 2, 2011, that correspond with the date of the event  
15 that you e-mailed the EPA about, right?

11:56:21

16 **A** Yes.

17 **Q** And if you'll notice up here toward the top of this report,  
18 you see a website, right?

19 **A** Yes, I do.

11:56:36

20 **Q** And it's similar to the one that was in the e-mail that  
21 you -- that the EPA sent to you that you clicked on, right? You  
22 talked about this e-mail?

23 **A** Yes, they look similar.

24 **Q** This is -- and I'll just submit to you this is where one  
25 would go to get public information like these STEERS reports.

11:56:49

Sprayberry - Cross/Rice

1 **A** Okay.

2 **Q** And if you see up here toward the end of that string,  
3 there's a number; and that number corresponds with the STEERS  
4 number -- the STEERS identification number of this event, okay?

11:57:11 5 **A** Okay.

6 **Q** And I just want to write this down so that we have a record  
7 of the STEERS numbers associated with these events that you  
8 experienced and that you recall; and that number is 150173,  
9 correct?

11:57:33 10 **A** Yes.

11 **Q** I just want to make sure that I had that written down. And  
12 the next one that Mr. Graham discussed with you this morning was  
13 also an event on February 2, 2011. This one is at a different  
14 plant in the facility. But can you tell me what that number is  
15 up on the top of that end of that website stream?

11:57:50

16 **A** Yes. It says 150177.

17 **Q** Thank you. Ma'am, to the best of your recollection, are  
18 these the only dates that you specifically recall for events  
19 that you experienced or witnessed?

11:58:45 20 **A** They're the only dates that I recall doing anything, yes.

21 **Q** Well, do you recall specific dates of events that you  
22 experienced but that you didn't do anything?

23 **A** No, sir.

24 **Q** Thank you, Ms. Sprayberry.

11:58:58

25 MR. RICE: I'll pass the witness, Judge.

## Sprayberry - Redirect/Graham

1 THE WITNESS: Thank you.

2 MR. GRAHAM: Very briefly.

3 THE COURT: Yes, sir.

4 REDIRECT EXAMINATION

11:59:02 5 BY MR. GRAHAM:

6 Q Ms. Sprayberry, why did you take Singulair?

7 A So that I could breathe and my lungs would be clear.

8 Q And did it help?

9 A Yes.

11:59:13 10 Q And you mentioned your father was a smoker. Did he smoke  
11 in the house growing up?

12 A No.

13 MR. GRAHAM: Pass the witness, your Honor.

14 THE COURT: Okay. Anything further?

11:59:26 15 MR. RICE: Nothing further, your Honor.

16 THE COURT: Thank you, ma'am. You may step down.

17 You're excused. You're free to leave. You can remain in the  
18 courtroom if you like, but you're free to leave.

19 THE WITNESS: Thank you.

11:59:35 20 THE COURT: Call your next witness.

21 MR. GRAHAM: Your Honor, the Plaintiffs call  
22 Ms. Marilyn Kingman.

23 THE COURT: Kingman?

24 MR. GRAHAM: Kingman, yes, sir.

12:00:51 25 THE COURT: Come around the pole, if you would,

Kingman - Direct/Graham

1 please, ma'am.

2 Raise your right hand to be sworn.

3 (The witness, **MARILYN KINGMAN**, called on behalf of the  
4 Plaintiffs, was sworn.)

12:01:04 5 THE COURT: Have a seat right there.

6 DIRECT EXAMINATION

7 BY MR. GRAHAM:

8 Q Ms. Kingman, would you please state your name for the  
9 record.

12:01:24 10 A Yes. I'm Marilyn Kingman.

11 Q Ms. Kingman, are you a member of the Sierra Club?

12 A I am.

13 Q And when did you join the Sierra Club?

14 A 2008.

12:01:35 15 Q And do you recall why you joined the Sierra Club?

16 A I was interested in fresh air. I thought they were working  
17 on projects that I was interested in, and that's the main one.

18 Q And, Ms. Kingman, where are you from?

19 A I'm from Wichita, Kansas.

12:02:00 20 Q And when did you move to Baytown or the Baytown area?

21 A The early '70s, 1970s; '71, '72, in there.

22 Q Why did you move to Baytown?

23 A Job opportunities.

24 Q For yourself?

12:02:21 25 A Yes. Myself and my husband, we both worked here in

Kingman - Direct/Graham

1 Baytown.

2 **Q** What did your husband do in Baytown?

3 **A** He was a chemical engineer at that time for Mobay. It's  
4 the Bayer Corporation, Bayer Corporation.

12:02:36 5 **Q** And how about you? What did you do?

6 **A** I taught school.

7 **Q** And what did you teach?

8 **A** I started out in physical education, and I soon went to  
9 mathematics.

12:02:48 10 **Q** Okay. And where did you teach?

11 **A** I started at the little Catholic school in Old Baytown,  
12 taught there about four or five years -- five and half years, I  
13 believe, and then went to Horace Mann which is a public school  
14 on Highway 146.

12:03:05 15 **Q** And both of those are in Baytown?

16 **A** Yes.

17 **Q** And after that did you teach anywhere else?

18 **A** Yes. I taught in Anahuac for 13 years. Then I transferred  
19 to Barbers Hill and taught there nine years and retired.

12:03:20 20 **Q** And both Barbers Hill and Anahuac are east of Baytown?

21 **A** Yes.

22 **Q** Barbers Hill, how far east of Baytown is that?

23 **A** Well, if you take the east corner of Baytown, I sort of  
24 consider it 146. It starts right there. The school's actually  
12:03:39 25 three miles east of that corner; but like, Garth Road, if you

Kingman - Direct/Graham

1 consider that the middle of Baytown, then you're looking about  
2 eight miles across there.

3 **Q** All right. And what's your current address?

4 **A** I's 10218 Travis Lane, Baytown, Texas.

12:03:57 5 **Q** And where is that?

6 **A** It's actually located in the City of Mont Belvieu.

7 THE COURT: Wait a second. Are you in Baytown or --

8 THE WITNESS: I'm sorry. My physical address is Mont  
9 Belvieu, the City of Mont Belvieu. We don't have mail service  
10 other than a box. And so Baytown brings it to us.

12:04:16 11 THE COURT: Okay. But you're a resident of Mont  
12 Belvieu?

13 THE WITNESS: Yes, sir, I am.

14 BY MR. GRAHAM:

12:04:26 15 **Q** And Mont Belvieu is the next town over from Baytown to the  
16 east?

17 **A** Yes.

18 **Q** And is that where Barbers Hill is located, too?

19 **A** Yes.

12:04:34 20 **Q** Okay. And how -- how often do you go into Baytown proper?

21 **A** Two or three times a week. Sometimes more.

22 MR. GRAHAM: Your Honor, would you put --

23 THE COURT: Which one do you need?

24 MR. GRAHAM: The computer.

12:05:00 25 THE COURT: Okay.

Kingman - Direct/Graham

1 BY MR. GRAHAM:

2 Q Ms. Kingman, would you like some water?

3 A No. I'm fine. Thank you.

4 Q There's a laser pointer up there.

12:05:19 5 A I wondered what that was.

6 Q Quick tutorial, this button down here in the middle, if you  
7 push, it puts a laser beam out there.

8 A Okay. Do you want me to stay right here?

9 Q Yes, please. And when you go into Baytown, why do you go  
12:05:38 10 into Baytown --

11 A Well --

12 Q -- two or three times a week?

13 A We're very small in Mont Belvieu. There's about 2,000 of  
14 us. So I do shopping, doctors, church, a lot of things.

12:05:52 15 Q So there's not any -- when you need to go in, do some  
16 shopping, you go to Baytown?

17 A Oh, yes, everything. We have a -- what I call the main  
18 strip which is Garth Road.

19 Q Could you point to the approximate location of that strip  
12:06:07 20 on the map?

21 A I believe this right here is Garth Road. This looks like  
22 I-10 coming across here.

23 Q And for the record, you're pointing at Defense Exhibit  
24 1012A. And go ahead.

12:06:24 25 A There's I-10. And Garth Road, you just start right up



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1 here, and you can start with the mall. If you want to shop the  
2 mall, there's restaurants if you want to eat; and every corner  
3 down here -- almost every corner has something on it. We shop  
4 at Academy, Kroger's, the pharmacy. Walgreen's is along there.  
12:06:50 5 Wal-Mart. I use all these stores. My cleaners is there. The  
6 hospital is there if you visit somebody or -- my doctor's office  
7 used to be in there. My eye doctor used to be in there. That's  
8 changed, but I used to go there.

9 Q So that when you want to go shopping or -- you come to  
12:07:12 10 Baytown and go on Garth Road or you want to do banking, that's  
11 where you go?

12 A Yes, sir.

13 Q Why else do you come into Baytown?

14 A Well, I attend church on Sunday morning, and there's some  
12:07:26 15 church activities that might be Sunday evening. It might be  
16 Monday for a church Bible study group. I have some meetings  
17 sometimes at the church.

18 THE COURT: Mont Belvieu anywhere on this map or what  
19 area generally do you reside in?

12:07:47 20 THE WITNESS: I'm sorry. Right there is Garth Road  
21 and I-10. And if you go six miles straight east on I-10 --  
22 well, even three miles would be the beginning of Mont Belvieu.

23 BY MR. GRAHAM:

24 Q But you're about six miles east of that intersection?

12:08:12 25 A Yes.

Kingman - Direct/Graham

1 Q Okay. And what other -- what other recreation or what  
2 other reasons do you come to Baytown?

3 A One of the things I come a couple of times a year is to  
4 help out with the Christian ladies thrift shop, and that's  
12:08:28 5 located somewhere in this area right here.

6 Q For the record, you're indicating adjacent to -- or nearly  
7 adjacent to the Exxon facility sort of in the --

8 A Yes, it's not very far.

9 Q -- east of the complex?

12:08:45 10 A Yes, sir. This is Old Baytown here. And their streets are  
11 all named by states, and the little thrift shop is right off of  
12 Louisiana right there. And then not far from there is Lee  
13 College, and we enjoy the basketball games.

14 Q How often do you go to the Lee College basketball games?

12:09:06 15 A Every home game, every home game. I'm from Kansas.

16 Q You're a basketball devotee. And where is Lee College? Is  
17 it pictured on this picture of the -- Defense Exhibit 1012A?

18 A It's -- I was looking for a park. It's right across the  
19 street from a park. It could be right here. That could be Lee  
12:09:31 20 College.

21 Q Okay. So you're indicating southeast, is it?

22 A Yes. It's east.

23 Q But it's hard to tell on the map where it is -- or on the  
24 photograph, excuse me?

12:09:42 25 A I'm not sure, yeah. It may be farther over here. I'm not

Kingman - Direct/Graham

1 sure.

2 **Q** Yeah. But when you come into town for all of these  
3 events -- or excuse me, for your shopping or to attend  
4 basketball games, to attend church, do you -- when you come into  
12:10:07 5 Baytown, can you see the ExxonMobil refinery?

6 **A** Yes, sir, you can.

7 **Q** And what do you notice about it when you come into town?

8 **A** Sometimes it smells; and when I come in from the east on  
9 I-10, I can smell the plant. I can smell it, smells like a  
12:10:30 10 chemical smell. When I come in from Mont Belvieu, which you'll  
11 be coming from the east, I sometimes can see a haze over the  
12 plant. Sometimes I can see a flare. Sometimes I can see three  
13 flares.

14 **Q** And so let's take those one by one. So when you encounter  
12:10:49 15 the smell you describe as a chemical smell, where do you  
16 encounter that smell?

17 **A** Around the plant. I've noticed it up on -- right here  
18 where you come across on I-10 right here. I can smell the  
19 plant. You come across this Fred Hartman Bridge down here.

12:11:13 20 It's probably on this road right here, Fred Hartman Bridge. I  
21 can smell the plant.

22 **Q** Is that all the time or is that --

23 **A** Not all the time. Sometimes it's really strong and  
24 sometimes not so strong, and sometimes I don't smell it.

12:11:33 25 **Q** And you said you also sometimes see a haze over the Exxon

Kingman - Direct/Graham

1 plant; is that right?

2 **A** Yes.

3 **Q** And have you noticed when you see that? Is there any --

4 **A** Sometimes I see it in the mornings. Sometimes I see it --

12:11:49 5 if the wind doesn't blow, anything that's been emitted just

6 seems to hang. It doesn't blow out of the area.

7 **Q** And you can see that at times?

8 **A** Yes.

9 **Q** And what's it look like?

12:12:02 10 **A** It's gray or brown.

11 **Q** And when you --

12 **A** It's -- yeah, it's not clear. It's not clear. You might  
13 look over to the right which would be north of the plant, and it  
14 might be blueish. The skies might be blueish, but this way it's

12:12:21 15 gray or brown or --

16 **Q** And then when you smell the chemical smell coming into  
17 Baytown, does it bother you?

18 **A** Yes, I'm concerned about it.

19 **Q** What do you -- what concerns you about it in particular?

12:12:31 20 **A** Well, I don't think it's good to breathe. I don't have a  
21 choice, you know, until I move. I live here and I do a lot of  
22 activities in Baytown and I'm breathing that air and it concerns  
23 me for health reasons.

24 **Q** And does the same thing apply to -- or does it concern you  
12:12:56 25 when you see the haze or -- over the plant or in the area?

Kingman - Direct/Graham

1 **A** Well, when I had a young son, we wouldn't go out and play  
2 tennis on those days. You know, we've been playing tennis at  
3 different places in Baytown, and he would -- we would take his  
4 little tricycle, and he would run around. But we would not do  
5 that on a day where it smelled.

12:13:20

6 **Q** And does that still apply, or I mean, do you still -- do  
7 you have any grand kids?

8 **A** I do have grand kids. They do come to town.

9 **Q** And what you just mentioned about your son when he was  
10 young and not wanting to go out when it was --

12:13:55

11 **A** Well, my son was asthmatic. So maybe I was very cautious  
12 with him, but I do have four children. And two of them have  
13 asthma when they get cold or they get an allergy attack or  
14 whatever.

12:14:13

15 **Q** Do you pay attention to the air quality?

16 **A** I do. I do.

17 **Q** Has that ever affected what you take them to do?

18 **A** Yes, it would. It would. There's a bayou that runs  
19 through, and they like to fish there or crab there or -- but if  
20 it was smelly or what I consider bad air, I wouldn't do it.

12:14:32

21 **Q** What did you consider bad air?

22 **A** Some that smells, something I can see.

23 **Q** So if you can see it or you can smell it, you're concerned  
24 about it?

12:14:51

25 **A** I am.

Kingman - Direct/Graham

1 Q And you said you were concerned about health issues. What  
2 health issues, in particular, concern you?

3 A Well, just in general, there's always the allergies I'm  
4 concerned about, but I'm also concerned about cancer. There's a  
5 lot of people here that have it. I've lost a dog with it, and  
6 nobody knows, you know, what causes it. So we need to take care  
7 of things.

8 Q And a couple of minutes ago, I said we would take these one  
9 by one. You mentioned flaring. When do you -- or have you ever  
10 encountered -- have you ever witnessed flares at the ExxonMobil  
11 complex?

12 A Yes, yes.

13 Q When do you see flares at the Exxon complex?

14 A If they have one of the big flares on, I can actually see  
15 that from I-10. I can see it when I go over Main. I can see it  
16 when I go over Garth, and I'm taking an overpass on I-10. I've  
17 driven down Texas Avenue, towards -- I mean, going to Lee  
18 College, and there was a huge flare there one night. I felt  
19 like I was driving right at it. To me that's scary because to  
20 me a flare that big was telling me there was some kind of  
21 problem at that site or on that unit.

22 Q What -- why does that concern you?

23 A Well, they have to get -- whatever that unit is doing, they  
24 have to get it under control. They have to get it back online.  
25 I mean, they're sending a lot of gas up there and burning it

Kingman - Direct/Graham

1 off, and I'm afraid -- I'm afraid that the unit could explode.

2 MR. RICE: Your Honor, I'm going to object to the  
3 speculation.

4 THE COURT: Sustained.

12:16:51 5 BY MR. GRAHAM:

6 Q Again, what -- let's be more specific. When you see --  
7 actually, let's talk about the flare. You say sometimes you see  
8 big flares. And what does that mean when you say a big flare?

9 A It's taller and bigger. There are big ones and little  
12:17:11 10 ones. Sometimes out of the flare, I'm just concerned of the  
11 dark smoke that comes with it.

12 Q So you've seen dark smoke coming out of a flare?

13 A Yes, yes.

14 Q How often have you seen that?

12:17:25 15 A A lot of times that you see a flare, it has dark smoke with  
16 it.

17 Q Okay. And, in fact, you were talking about the big flares  
18 and specifically what concerns you. What concerns you about  
19 these flaring events -- or actually, let me take this a  
12:17:48 20 different way. What's your -- what's your basis for believing  
21 that there is a danger or a problem at a plant and a big flare  
22 is going off? Why do you think that?

23 A When you have a problem on a unit, that's a safety feature,  
24 is to send it through the flare.

12:18:10 25 Q And how do you know that?

Kingman - Direct/Graham

1 **A** I don't know. I guess because there's just general  
2 information. Sometimes, you know, they're bringing a unit up.  
3 Sometimes they're taking a unit down because a hurricane is  
4 coming in. There's times that you have to use the flare for  
5 safety.

12:18:41

6 **Q** Okay. And let's talk -- do you pay attention to what  
7 direction the wind is blowing?

8 **A** Yes, I do. That's important to me.

9 **Q** Do you pay attention to that when you're at home in Mont  
10 Belvieu?

12:18:59

11 **A** Yes.

12 **Q** You would pay attention to that when you're in Houston?

13 **A** Yes.

14 **Q** Do you pay attention to that when you're in Baytown?

12:19:10

15 **A** Yes, yes. I paid attention to the direction of the wind  
16 and where I bought my house. I don't want to live right north  
17 of any plant and I don't want to live south of any plant because  
18 I feel like the wind comes off the coast most of the time.

19 **Q** So have you ever lived north or south of an industrial  
20 facility?

12:19:30

21 **A** No.

22 **Q** And that's because you believe that -- why is that?

23 **A** Well, I've looked at a house in Country Club, which is  
24 north of the plant, the Exxon plant; and I would have liked to  
25 live in Country Club. But when I got out of my car to talk to

12:19:46



Kingman - Direct/Graham

1 that realtor, it smelled so bad that day. I looked at my  
2 husband and said, "We cannot live here. I could not bring a  
3 five-year-old asthmatic here, can't do it."

4 **Q** When was that?

12:20:03 5 **A** That was probably about '76 or '77. We lived in an  
6 apartment for five years.

7 THE COURT: '76, the year?

8 THE WITNESS: Yes, sir. 1977, somewhere in there.

9 THE COURT: Got you.

12:20:15 10 BY MR. GRAHAM:

11 **Q** Okay. And why else do you -- so you believe the wind --  
12 the prevailing winds are from the north or south going over  
13 there?

14 **A** Yes. And I like to live east and west. I live east of the  
12:20:30 15 plant right now and I lived east when I lived in Kings Bend.

16 **Q** That's a subdivision in Baytown?

17 **A** Yes.

18 **Q** Any other reason why you pay attention to the direction of  
19 the wind?

12:20:40 20 **A** If there is any gas that escapes a plant, you need to know  
21 which way the wind is going because you want to go downwind.

22 **Q** You want to --

23 **A** If there's some kind of a problem and gas escapes, any kind  
24 of gas escapes, everybody needs to know which way that gas is  
12:21:01 25 going to go. It's going to go with the wind.

Kingman - Direct/Graham

1 Q And, so, you said you want to be downwind of it. Do you  
2 mean you want to be upwind?

3 A Oh, I want -- yeah. I'm sorry. Yes. I want to be upwind.  
4 You want to go in the other direction.

12:21:17 5 Q And so have you -- how long have you lived in -- I guess  
6 that's called the greater Baytown area or --

7 A Since the early '70s. So about 40 years.

8 Q So you're cognizant of wind direction?

9 A Yes, I am.

12:21:46 10 Q How do you notice which way the wind is blowing, just by  
11 feeling it on your face?

12 A I listen to the weather report is one thing. I have a flag  
13 at my house which tells me which way. My school flies two big  
14 flags all the time. If I go by the plants, you can go down I-10  
12:22:04 15 and go past more than one plant, and you see which way the smoke  
16 is going. A lot of steam comes out of the plants, and you can  
17 see which way that flows. It's with the wind.

18 Q And so you were talking about you don't want to be downwind  
19 of a release of chemicals or gas?

12:22:25 20 A Never.

21 Q And is there any other -- any other reason you're paying  
22 attention to the wind or why you don't want to be downwind?

23 If not, that's fine. I'm just curious.

24 A Well, I wouldn't want my home to be south of the plant or  
12:22:48 25 north of the plant, any plant, because I don't think that's the

Kingman - Cross/Rice

1 freshest air in town.

2 **Q** Let's -- let me go back here very briefly to -- you were  
3 talking about smells and witnessing what you consider air  
4 pollution in and around Baytown.

12:23:10

5 **A** Yes.

6 **Q** And is that -- do you attribute the smell to any particular  
7 location?

8 **A** It's the same smell that I smell when I come in. I  
9 contribute it to the Exxon -- that complex. I know there's more  
10 than one company there, but it's Exxon's complex that I smell.

12:23:30

11 **Q** And do you want to breathe that smell?

12 **A** No, I don't know what it is.

13 MR. GRAHAM: Pass the witness, your Honor.

14 MR. RICE: Your Honor, may I proceed?

15 THE COURT: Yes.

16 CROSS EXAMINATION

17 BY MR. RICE:

18 **Q** Good afternoon, Ms. Kingman.

19 **A** Hello.

12:23:54

20 **Q** I happen to be from Kansas, too.

21 **A** Oh, yes?

22 **Q** I'm just a few hours north of Wichita.

23 **A** Yes, Salina.

24 **Q** That's right. Born and raised in -- born in Salina, raised  
25 near Salina.

12:24:13

Kingman - Cross/Rice

1 MR. RICE: I'm sorry, Judge. Can we get the computer?

2 BY MR. RICE:

3 Q All right, Ms. Kingman. If you'll notice up there on the  
4 screen, this is your residence up here at 10218 Travis Lane,  
5 correct?

12:24:28

6 A That's correct.

7 Q And that's actually in Mont Belvieu, right?

8 A Yes, it is. It's in the City of Mont Belvieu.

9 Q And this is I-10 that comes along south of you?

12:24:37

10 A Yes, sir.

11 Q How many miles north of I-10 is your residence?

12 A Two or less.

13 Q Okay. And, now, I will tell you, we went on Google and --  
14 Google Earth and measured this from -- the distance from the

12:24:56

15 Baytown facility to your residence to be about 10.2 miles. Does  
16 that comport with your approximation of how far it is?

17 A Well, I didn't use this method. The roads, I would have  
18 said 12.

19 Q Okay.

12:25:09

20 A So I agree with it, yes, sir.

21 Q And how long have you lived at this location?

22 A Maybe ten years, maybe 12; 10 or 12 years.

23 Q So 10 to 12 years, you've been here, and prior to this --  
24 prior to moving to Mont Belvieu, you lived in a neighborhood  
25 called Kings Bend; is that right?

12:25:37

Kingman - Cross/Rice

1 **A** Yes, I did.

2 **Q** And is that Kings Bend neighborhood -- how far is it from  
3 the Baytown Exxon facility?

4 **A** It can't be more than seven or eight -- it's along 146  
12:26:06 5 if -- that's got to be 146 right there, and there's a bayou that  
6 crosses 146 and Kings Bend is right close to that. That could  
7 be Massey Tompkins.

8 **Q** So it's your recollection that this Kings Bend subdivision  
9 where you lived is seven to eight miles east/northeast of  
12:26:36 10 Baytown Exxon facility. Would that be accurate?

11 **A** No, it would be a mile or two north but east, more east --  
12 if it's right in here, I would just consider it a mile or two  
13 north.

14 **Q** A mile or two north but altogether seven to eight miles  
12:27:00 15 away from --

16 **A** Yes, sir. Yes, sir, I would.

17 **Q** And you lived there until you moved to Mont Belvieu,  
18 correct?

19 **A** We had an apartment for five and half years and then lived  
12:27:13 20 in Kings Bend 25, 26 years and then moved.

21 **Q** Right. The apartment that you had was when you first moved  
22 to Belvieu -- or to Baytown, right?

23 **A** Yes, it is.

24 **Q** So '72, '3, '4, somewhere in that area?

12:27:31 25 **A** Yes, sir.

Kingman - Cross/Rice

1 Q And it was, if I recall correctly, on -- near Taft and Wood  
2 Streets, correct?

3 A Yes. I think it's Taft and Narcille. I've looked that up.  
4 It's been a long time since I've been there.

12:27:42 5 Q And can you just point us on the map here where that  
6 particular location was?

7 A Okay. Let's see. 146, let me think. It's not over here.  
8 I'm trying to get -- it was east. It was close over here. It  
9 was actually east of 146. If that's the old 146 going through  
10 town, then it was east of there.

11 Q And how far in miles from the Exxon facility would it have  
12 been from -- to this apartment that you first lived in?

13 A That looks like it might be about five miles across there.

14 Q Okay. So the closest that you've ever actually lived to  
15 the Exxon Baytown complex is five to six miles?

16 A Yes.

17 Q And that was over 40 years ago?

18 A Yes.

19 Q Okay. And now you live about ten miles away and have for  
20 the last 12 years?

21 A Yes.

22 Q And now at your home now in Mont Belvieu, you're pretty  
23 close to some other petrochemical facilities, right?

24 A Yes, sir.

12:29:03 25 Q In fact, you're pretty close to Chevron Phillips' chemical

Kingman - Cross/Rice

1 plant?

2 **A** Yes, sir.

3 **Q** A couple of miles away?

4 **A** Yes.

12:29:11 5 **Q** And where is it located directionally from your home?

6 **A** That's probably it right there. If this is 146, which it  
7 looks like it is, then that's it right there.

8 **Q** So your home now in Mont Belvieu is actually almost  
9 directly in line to the east of the Chevron Phillips' chemical  
12:29:33 10 plant?

11 **A** Yes.

12 **Q** Okay. And it's also -- you're also very close to  
13 Enterprise Products Facility, right?

14 **A** Yes.

12:29:42 15 **Q** And directionally from your home, where is the Enterprise  
16 facility?

17 **A** Well, I'm not sure, but everything is right up in here.  
18 There's a 1942 Road -- I don't know if that's it -- that it goes  
19 across there, but there's a lot of plants up in this area.

12:30:03 20 **Q** And, Ms. Kingman, about how many miles is it from  
21 Enterprise Products' location to your home?

22 **A** Probably a mile.

23 **Q** Now, from your home in Mont Belvieu -- am I pronouncing  
24 that correctly?

12:30:22 25 **A** Yes.

Kingman - Cross/Rice

1 Q From your home in Mont Belvieu, you can't actually see the  
2 Exxon Baytown Complex, right?

3 A No.

12:30:38

4 Q But you can see these other two plants, can you not, from  
5 your home? You can see Enterprise and you can see C. P. Chem?

6 A I could if I didn't have trees or buildings in the way, I  
7 do believe. When I'm on I-10 there, I can; and when we cross  
8 I-10, there's a road over here called 3180 that we go over I-10.  
9 And, of course, you can certainly see the plant.

12:31:01

10 Q Now, when you lived at Kings Bend 12 years ago, you  
11 couldn't actually see the Exxon complex from there either,  
12 right?

13 A No.

14 Q Now, the Chevron chemical plant, do they have flares?

12:31:11

15 A Yes, sir.

16 Q Can you see those flares from your home?

17 A No. Just cause there's trees and houses, you know. I am  
18 not up high enough. If I get up on I-10, I see them.

19 Q Right. And the Enterprise facility, do they have flares?

12:31:36

20 A If it's where I think it is, the answer is yes.

21 Q And would it be the same answer -- you can't see the flares  
22 there because of trees and things, but if you got up high enough  
23 you could see them from your home; is that accurate?

12:31:59

24 A Yes. Or just get out on an open road where it's just not  
25 houses.



Kingman - Cross/Rice

1 Q Okay. Now --

2 MR. RICE: Okay, I think we're done with this slide,  
3 Hien. Thank you.

4 BY MR. RICE:

12:32:06 5 Q Now, Ms. Kingman, you're a Sierra Club member, right?

6 A Yes, sir.

7 Q And you've been a Sierra Club member for awhile now, right?

8 A A little bit, yes, sir.

9 Q And is it true that you became a Sierra Club member  
12:32:20 10 primarily because you knew they opposed the Keystone Pipeline?

11 A No.

12 Q Is that one of the reasons you joined the Sierra Club?

13 A No.

14 Q Might you have testified differently at one point in time?

12:32:49 15 MR. GRAHAM: Your Honor, I'm going to object. I don't  
16 believe the Keystone Pipeline came around in 2008 when she --

17 THE COURT: I don't know. I don't know what he's got  
18 at the depo or whatever he's looking at. So overruled at this  
19 time.

12:33:05 20 THE WITNESS: Is there something I could look at, sir?

21 BY MR. RICE:

22 Q Sure. You remember giving a deposition in this case?

23 A Yes, sir, I do. I do.

24 Q I'm going to show you a transcript, ma'am. I'm going to  
12:33:28 25 start down here on page 50 right at line 21 and right up through

Kingman - Cross/Rice

1 the first couple of lines of 51.

2 **A** Okay.

3 **Q** Do you see that in there, ma'am, where you talk about the  
4 Keystone Pipeline and the reason for joining Sierra Club?

12:34:12 5 MR. KRATKA: What page are you looking at?

6 MR. RICE: Page 50, start on line 22, through 51, line  
7 3.

8 THE WITNESS: I didn't join the Sierra Club because of  
9 that pipeline.

12:34:38 10 BY MR. RICE:

11 **Q** Well, let me ask you this, ma'am: Is that a reason -- one  
12 of the reasons you joined, or is that an advantage of joining  
13 Sierra Club?

14 MR. GRAHAM: Objection. Compound question.

12:34:49 15 THE COURT: Overruled.

16 THE WITNESS: I joined the Sierra Club for fresh air  
17 and fresh water, and I'm very proud of the founder who actually  
18 took Teddy Roosevelt camping and said we need to have national  
19 parks. And my comment in here is I hope someone is watching out  
20 for natural resources and national parks.

12:35:12

21 BY MR. RICE:

22 **Q** Okay. Okay. So in your deposition where my colleague  
23 asked you about the comment that you had made where you said,  
24 "Knowing they're around, they're" --

12:35:26

25 THE COURT: Hold it.

Kingman - Cross/Rice

1 MR. GRAHAM: Your Honor, this is improper impeachment.

2 THE COURT: I haven't heard it yet.

3 Did she say something there that's contrary to  
4 what she said here?

12:35:42 5 MR. RICE: Yes, sir. And it's --

6 THE COURT: All right. Overruled. Then read it and  
7 let's move on, what she said.

8 BY MR. RICE:

9 Q Page 50, we'll start on line 22 --

12:35:47 10 A Okay.

11 Q -- where my colleague in your deposition asked you about a  
12 statement that you had made and that statement being, "Knowing  
13 that they're around, 'they're' being Sierra Club, reassures me  
14 that at least someone will be thinking about things like the  
15 impacts of building new pipeline."

12:35:59

16 "Are you referring there to the Keystone Pipeline  
17 that's been in the news so often these days?"

18 And your answer was "Yes," correct?

19 THE COURT: All right.

12:36:13 20 BY MR. RICE:

21 Q Is that correct, ma'am, that was your answer?

22 A Yeah, it looks like it.

23 Q Because, in fact, you learned about this case when you got  
24 a phone call from -- back in 2011 from a lawyer, right?

12:36:31

25 THE COURT: Is that where you first learned about this

Kingman - Cross/Rice

1 case? That's his question.

2 THE WITNESS: Yes, sir.

3 BY MR. RICE:

12:36:39

4 Q And that phone call was from one of the lawyers that  
5 represents one of these Plaintiffs in this case, correct?

6 A Yes.

12:37:02

7 Q And before you received that phone call from one of these  
8 lawyers here, you had never done any research about air  
9 emissions or emission limits as it relates to the Exxon Baytown  
10 facility, right?

11 A I had not personally done research, no.

12:37:16

12 Q In fact, the first that you had heard about these emission  
13 limits and emission events that were taking place at the Baytown  
14 complex was when that lawyer called you up and told you about it  
15 back in 2011; isn't that true?

16 A It's true for the ones that we're talking about now, but --

17 Q Right. And you understand that's why we're here today,  
18 right? It's about the emissions events.

19 MR. GRAHAM: Your Honor, I --

12:37:30

20 THE COURT: Excuse me.

21 Yes, sir.

22 MR. GRAHAM: I'd ask the Court to allow the witness to  
23 finish her answer.

24 THE COURT: Let her finish the answer.

12:37:39

25 Okay, finish your answer.

Kingman - Cross/Rice

1 THE WITNESS: I was aware of air quality when I first  
2 moved here. I think Chambers County -- because Dr. Thibodeaux  
3 was in charge of air quality around, I think, Chambers County --  
4 I mean, Harris County. For some reason I followed him in the  
5 paper when he had an article or -- in his endeavors to collect  
6 air samples. It was interesting to me.

12:37:51

7 BY MR. RICE:

8 Q And when this lawyer called you up to tell you about this  
9 lawsuit, they also told you about a lawsuit against Chevron  
10 Phillips Chemical Company, right?

12:38:08

11 A Yes.

12 Q They actually provided you a report about it?

13 A Yes.

14 Q Now, is it true, ma'am, that you've never actually called  
15 Exxon to complain about any of the activities taking place at  
16 their Baytown complex?

12:38:25

17 A I have not.

18 Q Have you ever called the Texas Commission on Environmental  
19 Quality?

12:38:38

20 A No.

21 Q Ever called the EPA?

22 A No.

23 Q Have you ever gone on the Texas Commission on Environmental  
24 Quality's website and looked at the publicly available reports  
25 about emission events at the Exxon complex?

12:38:58

Kingman - Cross/Rice

1 **A** I don't think so.

2 **Q** Ms. Kingman, is it true then you couldn't give us here  
3 today any specific dates of specific air emission events that  
4 have occurred at the Baytown Complex that you would have  
5 knowledge of?

12:39:22

6 **A** May I use my nose because last Thursday I could smell the  
7 chemical that I'm talking about.

8 **Q** And where were you last Thursday?

9 **A** I was in Baytown. That might have been at the grocery  
10 store. I was along Garth Road.

12:39:40

11 **Q** Okay. And what was the date of last Thursday, do you  
12 recall?

13 **A** That's the 12th? No, it wasn't. Friday, the 13th. Maybe  
14 it was the 13th.

12:40:05

15 **Q** We've decided that was the 13th, right, ma'am?

16 **A** Is that right?

17 **Q** Okay. So last Thursday on the 14th -- 13th, I'm sorry, you  
18 say that you smelled a smell?

19 **A** Yes, sir.

12:40:17

20 **Q** And in your mind, you thought that was a smell that was  
21 emanating from Exxon Baytown?

22 **A** Yes.

23 **Q** Ma'am, are there any other dates, specific days that you  
24 can point the Court to on -- that are dates sometimes when  
25 you've experienced some kind -- what you think is an emission

12:40:38

Kingman - Cross/Rice

1 event from the Baytown Complex?

2 **A** I can't give a date; but within the last two weeks coming  
3 in on I-10, coming back from -- I believe it was on a Monday  
4 evening. I was coming back from Houston, and it was 8:00  
5 o'clockish. And I could smell that same chemical smell that I  
6 think is --

7 **Q** Okay. But you don't know the specific date on that one?

8 **A** If Monday is the 6th, it would have been -- all right.  
9 Maybe it is a Monday evening.

10 **Q** Okay. All right. Now, at your home in Mont Belvieu, do  
11 you often -- or do you at any time smell odors that you relate  
12 to chemical releases or --

13 **A** I don't.

14 **Q** All right, ma'am. Now, you don't claim that you have any  
15 medical problems or medical conditions that you associate with  
16 any of the activities at Exxon's facility, right?

17 **A** No.

18 **Q** You don't have any physical ailment or health condition of  
19 any kind that you attribute to anything happening at Exxon?

20 **A** No, sir.

21 **Q** I think you mentioned your son and some grand kids. Where  
22 do they live?

23 **A** They live in College Station.

24 **Q** And you mentioned earlier that there was a time that you  
25 looked at a house that you were interested in buying in Baytown

Parmley - Direct/Nicholas

1 and you decided not to buy it because of some odor?

2 **A** Yes.

3 **Q** And that was before you moved to Kings Bend?

4 **A** Yes. That's when we were looking for a house.

12:42:37 5 **Q** So that would have been when, 35 years ago?

6 **A** In '76, somewhere in there. We came early '70s, and I was  
7 in that apartment five and half years. So it's going to be '76  
8 or '77.

9 MR. RICE: Pass the witness, your Honor.

12:43:05 10 BY MR. RICE:

11 **Q** Thank you, Ms. Kingman.

12 **A** Thank you, sir.

13 MR. GRAHAM: Nothing further, your Honor.

14 THE COURT: You may step down. You're excused.

12:43:13 15 You're free to leave. You may remain in the courtroom if you  
16 like, but you're free to leave.

17 Call your next witness.

18 MR. NICHOLAS: Randy Parmley.

19 THE COURT: Raise your right hand to be sworn.

12:43:50 20 (The witness, **RANDY PARMLEY**, called on behalf of the  
21 Plaintiffs, was sworn.)

22 DIRECT EXAMINATION

23 BY MR. NICHOLAS:

24 **Q** Good morning, Mr. Parmley.

12:43:55 25 **A** Good morning.



Parmley - Direct/Nicholas

1 **Q** I'm Dave Nicholas. I just have a few questions for you  
2 this morning. Mr. Parmley, who are you employed by?

3 **A** Sage Environmental Consulting.

4 **Q** How long have you been with Sage?

12:44:09 5 **A** About 13 years.

6 **Q** What kind of business is Sage Environmental Consulting?

7 **A** We primarily do consulting work. It's associated with many  
8 aspects of the Clean Air Act. My specialty is permitting and  
9 dispersion modeling.

12:44:29 10 **Q** What is your job title?

11 **A** I'm the executive vice president.

12 **Q** What are your job duties at Sage?

13 **A** I am a client service manager with a specialty in  
14 petrochemical air pollution consulting, as I said, primarily in  
12:44:48 15 the areas of permitting and atmospheric dispersion modeling.

16 **Q** At your job at Sage, you help companies with air permitting  
17 issues; is that right?

18 **A** I'm a third-party advocate for, you know, a intermediary  
19 between TCEQ, EPA, and the industry. So, essentially, yes.

12:45:10 20 THE COURT: How long have you been with the Sage  
21 Environmental, did you say?

22 THE WITNESS: I'm sorry, your Honor, about 13 years.

23 BY MR. NICHOLAS:

24 **Q** You help companies apply for clean air permits?

12:45:23 25 **A** Yes.

Parmley - Direct/Nicholas

1 THE COURT: Let me just ask the educational  
2 background, please, sir.

3 THE WITNESS: Yes, your Honor. I've got a Bachelor in  
4 Natural Sciences from the University of Texas at Austin in '76  
12:45:33 5 and then also a Bachelor in Environmental Engineering from the  
6 University of Texas at Austin in '79.

7 THE COURT: Okay. Thank you.

8 BY MR. NICHOLAS:

9 Q In your job at Sage, do you conduct air dispersion modeling  
12:45:46 10 for companies?

11 A Yes.

12 Q You're an air dispersion modeler?

13 A Yes.

14 Q Air dispersion -- an air dispersion modeler estimates the  
12:46:06 15 concentration of pollutants at specified ground level receptors  
16 surrounding an emission source. Do I have that correct?

17 A Essentially, yes.

18 Q Are you a medical doctor?

19 A No, I'm not.

12:46:19 20 Q Are you a toxicologist?

21 A No, sir.

22 Q Do you have a public health degree?

23 A No, sir.

24 Q Now, Sage has done work for Exxon's Baytown Complex?

12:46:28 25 A Yes, that's correct.

1 Q As a --

2 THE COURT: In other words, let me ask you this:  
3 Basically, your specialty is concentration of pollutants at  
4 ground level?

12:46:38 5 THE WITNESS: Yes, your Honor. That's, essentially,  
6 what the models we use predict.

7 THE COURT: Okay. Versus what? Versus in the air?  
8 Again, you made a point of ground level. Is that where your  
9 monitoring equipment goes?

12:46:53 10 THE WITNESS: Yes, your Honor, and that's where the  
11 exposure to the public would be.

12 THE COURT: Okay.

13 THE WITNESS: So that's where our interest in  
14 measuring it is.

12:47:00 15 THE COURT: I understand. Thanks.

16 BY MR. NICHOLAS:

17 Q And when we're talking about modeling, we're talking about  
18 not actually a monitor but you do calculations to figure -- to  
19 do an air dispersion model, correct? And we'll get to that, but  
12:47:13 20 is that generally correct?

21 A Yes, it's a computer model.

22 Q Now as a Sage employee, have you done work for Exxon at the  
23 Baytown Complex?

24 A Yes.

12:47:25 25 Q Have you consulted on Baytown Complex air permitting

Parmley - Direct/Nicholas

1 applications?

2 **A** Yes.

3 **Q** And can you generally explain what that work entails?

4 **A** It entails working with the design team initially on a

12:47:40 5 capital project, informing them of the environmental

6 requirements for that equipment, putting together the

7 application with TCEQ, conducting a best available control

8 technology evaluation, working with TCEQ primarily, sometimes

9 EPA, with any questions or issues with the application, doing

12:48:08 10 the dispersion modeling that predicts the concentrations from

11 the proposed units, and essentially working with the TCEQ and

12 EPA making additions to the permit.

13 **Q** Do you conduct air dispersion modeling for emission events

14 at the Baytown Complex?

12:48:29 15 **A** On occasion.

16 **Q** Now, Exxon has hired you to provide expert testimony in

17 this case, but you have done work for Exxon long before you were

18 hired --

19 THE COURT: Let me ask you this: Do we consider this

12:48:42 20 witness an adverse witness?

21 MR. NICHOLAS: Yes.

22 MR. NICHOLS: I don't know how he considers him --

23 THE COURT: Is that how --

24 MR. NICHOLAS: Yeah, yeah.

12:48:50 25 THE COURT: That's fine. I didn't know where he fit

Parmley - Direct/Nicholas

1 into the sequence.

2 MR. NICHOLAS: And I had a longer line of questions to  
3 establish that, but I assume that that's not really an issue.

4 MR. NICHOLS: If I can be heard, Judge, this man has  
12:48:59 5 done modeling in the course of the operations of the Baytown  
6 Complex outside of litigation. In other words, he's not --  
7 Mr. Nicholas said something about him being retained  
8 specifically for the case. He has done work related to the  
9 Baytown Complex even before there was a case.

12:49:18 10 MR. NICHOLAS: Yes, that's exactly right. And they  
11 were -- and he's also a retained expert in the case.

12 THE COURT: By who?

13 MR. NICHOLAS: By Exxon. So he's a -- for the  
14 purposes of -- for examination, he is considered to be --

12:49:30 15 THE COURT: You've been on the stand before. Have you  
16 ever been on the stand before?

17 THE WITNESS: Only in contested permit hearings.

18 THE COURT: Okay. When I say "hostile witnesses,"  
19 it's just a matter of leading questions versus non-leading  
12:49:43 20 questions. That's all.

21 THE WITNESS: Any help appreciated.

22 THE COURT: Yes, sir. Go on. How hostile, we get to  
23 see so -- all right, go on.

24 BY MR. NICHOLAS:

12:49:52 25 Q So from time to time, Exxon asks Sage to do air dispersion

Parmley - Direct/Nicholas

1 modeling of the emissions events at the Baytown Complex,  
2 correct?

3 **A** That's correct.

4 **Q** And is it your understanding that oftentimes Exxon asks  
12:50:04 5 Sage to perform air dispersion modeling on emission events  
6 because TCEQ has requested it?

7 **A** That's my understanding.

8 **Q** When Sage models emission events because TCEQ requests it,  
9 Sage writes a report on the modeling results?

12:50:21 10 **A** Correct.

11 **Q** Do you sign those reports?

12 **A** Yes.

13 **Q** Do you address the reports to TCEQ?

14 **A** That's correct.

12:50:34 15 **Q** But you give the reports to Exxon?

16 **A** That's also correct.

17 **Q** And it's your understanding that Exxon gives them to TCEQ?

18 **A** I don't know.

19 **Q** Now, I'm just going to show you an example of one of the  
12:50:45 20 reports you would write to -- that's addressed to TCEQ but given  
21 to Exxon.

22 MR. NICHOLAS: So, your Honor, if I could have the  
23 ELMO actually?

24 THE COURT: Oh, yeah.

12:51:05 25 //

Parmley - Direct/Nicholas

1 BY MR. NICHOLAS:

2 **Q** All right. So this is Exhibit -- Plaintiffs' Exhibit 374.

3 And I'm just going to show you -- I can show you the whole

4 report if you want, but this is the form of report that you

12:51:20 5 generate for your air dispersion modeling of emissions events?

6 **A** Yes.

7 **Q** Okay. And if I flip to this Exhibit 374 and on page EOMCS

8 00051561, this is your -- that's your signature?

9 **A** Yes.

12:51:49 10 MR. NICHOLAS: Your Honor, rather than identify all

11 the reports that we've provided as exhibits, I will just read

12 them into the record. They are Plaintiffs' Exhibits 374 to

13 through 377, 379 through 388, 390 through 392, 394, 455, 460 and

14 461.

12:52:16 15 THE COURT: Yes, sir.

16 MR. NICHOLS: Your Honor, there are more reports that

17 were authored by Sage that were marked by Plaintiffs as

18 exhibits. Are these the only ones that are being offered?

19 THE COURT: Is that the ones you're offering, Counsel?

12:52:29 20 MR. NICHOLAS: I thought I got them all. I have some

21 additional questions on another form of report. If I missed

22 any, I incorporate them into my exhibit list.

23 THE COURT: No, no. For now that's all we have in.

24 If you can work at it during the lunch break and need more, just

12:52:45 25 confer with one another.

Parmley - Direct/Nicholas

1 BY MR. NICHOLAS:

2 **Q** All right. And you wrote -- you write the same type of  
3 report for Exxon regarding Exxon emission events for Exxon's  
4 attorneys in this case; you've generated some of those reports?

12:52:59 5 **A** Yes.

6 **Q** And those would be -- well, let me just show you an example  
7 of that. So, when you generate a report, an air modeling report  
8 for the attorney, it would be addressed to Albert Axe; is that  
9 right?

12:53:15 10 **A** I believe that's correct.

11 **Q** It's the same type of report but just addressed to the  
12 Exxon attorney. Is that fair to say?

13 **A** Correct.

14 MR. NICHOLAS: Your Honor, those would be -- so those  
12:53:28 15 are exhibits -- Plaintiffs' Exhibits 378, 389 and 393.

16 BY MR. NICHOLAS:

17 **Q** All right. I want to talk to you a little bit about -- a  
18 little more detail about modeling of emission events. Sage  
19 conducts modeling of individual pollutants released during an  
12:53:48 20 emissions event?

21 **A** That's correct.

22 **Q** So it may model, for example, sulfur dioxide?

23 **A** Yes.

24 **Q** And it may model carbon monoxide?

12:53:59 25 **A** Yes.



Parmley - Direct/Nicholas

1 Q And it may do an air dispersion model of hydrogen sulfide?

2 A That's correct.

3 Q And so Sage models the maximum off-site concentration of a  
4 pollutant released during an emissions event, correct?

12:54:15 5 A Yes.

6 Q And you understand off-site to mean beyond the fence line  
7 of the Baytown Complex?

8 A No.

9 Q What's that?

12:54:24 10 A No.

11 Q So you model -- the model could show that the maximum --  
12 well, all right. What is your definition of off-site?

13 A Off-site of the facility, whether it's the Baytown olefins  
14 plant. Off-site could be at the refinery.

12:54:40 15 Q Okay. So it's by -- so there are three plants at the  
16 complex, correct?

17 A Correct.

18 Q And so if you're modeling an emission event at the  
19 refinery, the maximum off-site concentration could be at the  
12:54:57 20 olefins plant?

21 A That's correct. It could be at another Exxon location.

22 Q Now -- now, when you model, when you do an air dispersion  
23 model of an emission event, the model predicts what the -- what  
24 the maximum off-site concentration is at ground level, right?

12:55:19 25 We've already talked about that?

Parmley - Direct/Nicholas

1 **A** Correct.

2 **Q** And Sage takes the results of the modeling and compares  
3 them to the certain government set standards or levels?

4 **A** Yes.

12:55:32 5 **Q** And in its reports Sage will state whether the modeling  
6 results indicate that the maximum off-site concentration for the  
7 modeled pollutants were above or below those government  
8 standards or levels?

9 **A** Given the input and the assumptions in the model, yes.

12:55:51 10 **Q** And there are, in fact, occasions when the modeling results  
11 indicate that the maximum off-site concentration for the modeled  
12 pollutants released by the Baytown Complex were above government  
13 standards or levels?

14 **A** You would have to give me a report and let me -- let me  
12:56:08 15 review it.

16 **Q** So, you're unable to tell me whether on occasion the  
17 modeling yields a result that is above or below a government-set  
18 standard or limitation?

19 **A** Yes.

12:56:20 20 **Q** Okay. Now, Sage -- those are all -- that would be  
21 reflected in your reports, correct?

22 **A** That's correct.

23 **Q** Now, Sage initially runs a model called SCREEN3 when it  
24 models emission events at the Baytown Complex?

12:56:36 25 **A** Yes.

Parmley - Direct/Nicholas

1 Q Occasionally, Sage will run a second model on an emission  
2 event?

3 A Yes.

4 THE COURT: Now, this is strictly by computer? There  
12:56:43 5 is no on-the-ground monitoring of the air quality or what?

6 THE WITNESS: That's correct, your Honor. These are  
7 all computer programs.

8 THE COURT: Based upon what comes out of the stack and  
9 what it would be?

12:56:53 10 MR. NICHOLAS: I'm going to get into that, your Honor.

11 THE COURT: Okay. All right.

12 MR. NICHOLAS: I got some details on that.

13 THE COURT: Okay. All right.

14 BY MR. NICHOLAS:

12:56:59 15 Q And when Sage runs a second model on an emissions event,  
16 what is the model called?

17 A The industrial source complex model.

18 Q And when -- and then the results of that modeling is  
19 compared to the government standard or level?

12:57:13 20 A That's correct.

21 Q Is it fair to say that Sage infrequently runs the  
22 industrial source complex model for emission events at the  
23 Baytown Complex?

24 A Yeah. The majority of the time SCREEN3 only was run.

12:57:28 25 Q You have used the SCREEN3 model many times?

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1 **A** Yes, many times.

2 **Q** Sage runs the SCREEN3 model on a computer?

3 **A** Yes.

4 **Q** And SCREEN3 has certain assumptions built into it?

12:57:41 5 THE COURT: All right, Counsel. Let me ask you this  
6 since I want to follow this: What's the difference between the  
7 first and the second? In other words, the industrial one is the  
8 second one. And the first one is what?

9 MR. NICHOLAS: The first one is SCREEN3.

12:57:56 10 THE COURT: The SCREEN3.

11 MR. NICHOLAS: That is, essentially if the SCREEN3  
12 hits a certain level, Sage will run another model on it. That's  
13 basically what happens.

14 THE COURT: Where are we going to get the numbers?

12:58:12 15 MR. NICHOLAS: I will be -- I'm also going to get into  
16 that, but essentially there are inputs put into the model  
17 provided by Exxon.

18 THE COURT: Both of these?

19 MR. NICHOLAS: Right. Well, you only get to the  
12:58:23 20 second one if the first one -- if the modeling output yields a  
21 certain result.

22 THE COURT: What sort of result?

23 MR. NICHOLAS: Above a standard.

24 THE COURT: Okay then.

12:58:34 25 MR. NICHOLAS: Then they rerun it.

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1 THE COURT: Then you run the second one? All right.  
2 That's all I need to know. I need the details, of course. I  
3 want to say that for the record, but I tend to get to the bottom  
4 line. Now you can fill in --

12:58:49 5 MR. NICHOLAS: I have bottom lined it.

6 THE COURT: -- as other courts may be very interested  
7 in it. All right, go on.

8 MR. NICHOLAS: I won't read anything into that.

9 BY MR. NICHOLAS:

12:58:58 10 Q So SCREEN3 has certain assumptions built into it, correct?

11 A Yes.

12 Q And SCREEN3 requires the user to input certain data?

13 A Correct.

14 Q Once the required data is input --

12:59:09 15 THE COURT: Are you the user for the purpose of the --  
16 of the modeling system.

17 THE WITNESS: Yes, sir, I am.

18 BY MR. NICHOLAS:

19 Q And once the required data is input by the user, you, the  
12:59:21 20 SCREEN3 model performs calculations and produces a result?

21 A Yes, that's fair enough.

22 Q And you've heard the phrase "garbage in, garbage out" in  
23 the context of modeling?

24 MR. NICHOLS: Objection, your Honor. That's  
12:59:34 25 argumentative.

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1 THE COURT: I've heard it before. Overruled.

2 THE WITNESS: Yes.

3 BY MR. NICHOLAS:

4 Q And it is your understanding that garbage in, garbage out  
12:59:42 5 in the context of modeling means the quality of the inputs of  
6 the model determines the quality of the predicted  
7 concentrations, correct?

8 THE COURT: Basically, is that true?

9 THE WITNESS: Basically, that's correct.

12:59:54 10 THE COURT: In other words, in any kind, accounting or  
11 whatever, it depends upon the quality of the figures going in  
12 relative to a result that comes out?

13 THE WITNESS: Yes, sir.

14 THE COURT: Okay, go on.

01:00:05 15 BY MR. NICHOLAS:

16 Q All right. Now, let's talk a little bit about the inputs  
17 into SCREEN3. Some Baytown Complex emission events that Sage  
18 models involve flaring?

19 A Yes.

01:00:16 20 Q Flare stack height is one of the inputs into SCREEN3 for an  
21 emission event that involves flaring?

22 A Yes.

23 Q Exxon gives Sage the flare stack height information?

24 A Yes.

01:00:28 25 Q For some of the emission events you modeled, Exxon gave you

Parmley - Direct/Nicholas

1 wrong flare stack height information?

2 **A** Apparently so. They gave us corrected information at a  
3 later date. So, apparently, the initial information was  
4 incorrect.

01:00:42

5 **Q** And when we're talking about the flare stack height, we're  
6 talking about literally the metal part of the flare? We're not  
7 talking about the flame; we're talking about the metal  
8 structure?

9 **A** Yes.

01:00:57

10 **Q** So Exxon eventually sent you the right flare stack height  
11 information for those events for which they gave you the wrong  
12 information?

13 **A** I believe I -- yes, that's correct.

14 **Q** And did you redo the air dispersion modeling for those  
15 emission events using the right flare height information?

01:01:14

16 **A** Yes, sir, we did.

17 **Q** Now, I'm going to show you -- I'm going to show you  
18 exhibit -- Plaintiffs' Exhibit 459. And is this the -- is  
19 this -- let's zoom in here, if we can.

01:01:37

20 All right. So you generated a sheet showing your  
21 corrected modeling results. Do I have that right?

22 THE COURT: What exhibit number?

23 BY MR. NICHOLAS:

24 **Q** This is Plaintiffs' Exhibit 459, and you reran air

01:01:53

25 dispersion modeling you conducted for emission events where

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1 Exxon gave you the wrong flare height, right? And that's  
2 reflected in this Plaintiffs' Exhibit 459, the results of that  
3 modeling?

4 THE COURT: Why don't you pull it in a little tighter?

01:02:10 5 THE WITNESS: No.

6 THE COURT: Oh, pull it in a little -- no. All right.

7 BY MR. NICHOLAS:

8 Q All right. So this reflects you did not rerun models --  
9 you did rerun models for events that had the wrong flare height?

01:02:27 10 A Yes.

11 Q And those are -- those rerun modeling exercises are  
12 reflected in this document, correct?

13 A This document being this page?

14 Q Yeah.

01:02:38 15 A No.

16 Q All right. What is this page?

17 A This page is simply a listing of flares and the heights  
18 that were initially run and the predictions resulting from  
19 those, from the flare only, not from the event, from the flare  
01:02:53 20 only.

21 Q Okay, I'm sorry. So in other words --

22 MR. NICHOLS: Hold on. Can he finish his answer?

23 MR. NICHOLAS: I'm sorry. Yes.

24 BY MR. NICHOLAS:

01:02:58 25 Q No, go ahead.



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1 **A** And then the second column was the corrected height in the  
2 percentage of -- ultimately, the percentage change just from the  
3 flare.

4 **Q** Right.

01:03:08 5 **A** Not from the event.

6 **Q** Because an event might involve more than just a flare?

7 **A** That's correct.

8 **Q** Okay. So you reran -- so, on this Plaintiffs' Exhibit 459,  
9 this shows rerun modeling for emissions coming out of a flare  
01:03:25 10 for which you were given the wrong flare height. Do I have that  
11 right?

12 **A** I'm sorry. Could you repeat that question?

13 MR. NICHOLS: Could you read that back? I'll never  
14 get it exactly right.

01:03:34 15 (The last question was read.)

16 THE WITNESS: Yes.

17 BY MR. NICHOLAS:

18 **Q** Now, let's -- and you've identified the wrong height and  
19 the right height in this exhibit, right?

01:04:06 20 **A** I've identified the initial height and the subsequent  
21 height, yes.

22 **Q** All right. So, let's just take a look at two of them. So  
23 you modeled an emission event on January -- what's that, New  
24 Year's? January, New Year's Day -- no, I'm sorry.

01:04:23 25 THE COURT: 1 January.

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1 BY MR. NICHOLAS:

2 Q January 1, 2006?

3 THE COURT: That's '06. All right.

4 BY MR. NICHOLAS:

01:04:29 5 Q And that's identified by a STEERS number. Do you see that?

6 Are you with me?

7 A Yes.

8 Q And the height -- the stack height that you modeled was a

9 50-foot stack. Do I have that right?

01:04:46 10 A Yes.

11 Q All right. But the actual height of the flare stack was

12 263 and half feet?

13 A Yes.

14 Q All right. And let's just take another example I've

01:05:01 15 highlighted. Let's take a look at June 20, 2006. And in this

16 one you were given a flare height of 248 feet but the actual

17 flare height was 201 feet. Do I have that right?

18 A Yes, that's correct.

19 Q So in this exhibit there are various -- you've set out this

01:05:23 20 type of information for a number of emission events? The --

21 THE COURT: Let me ask you this: Take a look at just

22 the second entry down. It says modeled in feet, 415, actual

23 415.

24 MR. NICHOLAS: Right. That one was correct. So he

01:05:40 25 didn't --

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1 BY MR. NICHOLAS:

2 **Q** You didn't remodel that because that one you actually got  
3 the correct --

01:05:47

4 THE COURT: Both columns are the same. You didn't  
5 have to recalculate; is that correct.

6 THE WITNESS: Yes, sir.

7 BY MR. NICHOLAS:

01:05:57

8 **Q** And some of them didn't involve a flare. So you didn't  
9 model them and -- you've identified if you have or have not --  
10 you've identified those emission events or those flare emissions  
11 that you've remodeled by putting in a yes in one of the columns,  
12 right, the yes/no column?

13 **A** Yes.

14 **Q** All right.

01:06:14

15 THE COURT: Counsel, any time within the next five  
16 minutes, we'll take a break. I just don't want to keep running  
17 over. So any time within the next five minutes, you're  
18 comfortable.

19 BY MR. NICHOLAS:

01:06:26

20 **Q** Mr. Parmley, so you remodeled events going back to 2005,  
21 correct?

22 **A** Yes.

23 **Q** And so you remodeled emission events for which you  
24 previously generated a report, right?

01:06:39

25 **A** Yes.

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1 Q And you did not remodel any of these events until after  
2 this lawsuit was filed?

3 A I can't really remember the exact dates, so --

4 Q Well --

01:06:52 5 A I don't know honestly when it was filed.

6 Q Well, you were asked to remodel -- to remodel these flaring  
7 emissions by one of Exxon's attorneys in this case?

8 A I can't recall whether it was Exxon or an attorney that  
9 provided me with obtaining that information.

01:07:14 10 Q Now, did you inform TCEQ that the reports you wrote using  
11 the wrong flare stack height were remodeled?

12 A I did not.

13 Q Exxon gives Sage information on the quantity of pollutants  
14 emitted during an emissions event?

01:07:36 15 A Yes.

16 Q Exxon gives Sage the emission rates of pollutants you were  
17 asked to model?

18 A Yes.

01:07:48 19 Q Exxon gives Sage the emission rates of pollutants you were  
20 asked to model in pounds per hour?

21 A Sometimes, yes; sometimes, no.

22 Q Sage does not itself calculate the emission rates of the  
23 pollutants, right?

24 A That's correct.

01:08:04 25 Q When Sage models a Baytown Complex emission event that

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1 involved flaring, Sage does not itself determine the destruction  
2 efficiency of the flare, correct?

3 **A** That's correct.

4 **Q** And the emission rates provided by Exxon are put into the  
5 SCREEN3 model?

6 **A** Generally speaking, yes.

7 **Q** And when Sage runs the other model on the Baytown Complex  
8 emission events, it again uses emission rates provided by Exxon?

9 **A** Yes.

10 **MR. NICHOLAS:** Your Honor, this would be --

11 **THE COURT:** All right. So why do you run a subsequent  
12 run because you're getting -- aren't you getting the same input  
13 numbers for the first report and the second report or do they  
14 change?

15 **MR. NICHOLS:** Your Honor, we're going to have a  
16 tutorial that I'm going to go through with him after --

17 **THE COURT:** Well, yeah, but that's coming later.

18 **MR. NICHOLS:** But Mr. Nicholas referred to something  
19 called a standard, and I respectfully disagree with what he told

20 the Court as far as that goes because, if there's an effect  
21 screening level, which is -- Mr. Parmley can describe to the  
22 Court what that is and what it is not. If there is an effect  
23 screening level and there is a modeled concentration -- off-site  
24 concentration that exceeds that screening level, then under some

25 **circumstances -- Mr. Parmley can explain -- the second model is**

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1 right.

2 THE COURT: All right. Explain it later. I didn't  
3 understand it. Okay. On that high note, we'll see you back at  
4 2:15.

01:09:28 5 (Court recessed at 1:09 p.m.)

6 (Court resumed at 2:21 p.m.)

7 THE COURT: Go right ahead.

8 BY MR. NICHOLAS:

9 Q All right, Mr. Parmley. We were talking about inputs into  
02:21:44 10 the SCREEN3 modeling that you used for your air dispersion  
11 modeling of emission events at the Baytown Complex. With me?

12 A Yes.

13 Q Okay. There are many sources of emissions at the Baytown  
14 Complex?

02:21:59 15 A Yes.

16 Q At the Baytown Complex multiple sources can emit pollutants  
17 simultaneously?

18 A Yes.

19 Q There can be routine emissions occurring at one part of the  
02:22:13 20 complex at the same time there are emission event emissions  
21 occurring at another part of the complex?

22 A It's possible.

23 Q When you model an emission event at the Baytown Complex,  
24 you do not include any routine emissions at the complex that may  
02:22:28 25 be occurring at the same time, correct?

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1 **A** Correct.

2 **Q** All right. Now, I want to go back to the comparisons that  
3 you make between the output of the SCREEN3 model and certain  
4 government standards and levels. Does the government standard  
5 or level you use for a comparison depend on what pollutant is  
6 being modeled?

7 **A** Yes.

8 **Q** You compared the modeled concentration of some pollutants  
9 to an effect screening level which is also known as an ESL?

10 **A** Yes.

11 **Q** When you -- when you do that, you are looking at the impact  
12 only from the emission event you modeled?

13 **A** Yes.

14 **Q** When comparing a modeled concentration of a pollutant to an  
15 ESL, background concentrations of the pollutant are not added to  
16 the modeled concentration, correct?

17 **A** Correct.

18 **Q** Now, you also compared the modeled concentration of some  
19 pollutants to state property line standards?

20 **A** We did on the request of TCEQ.

21 **Q** When comparing a modeled concentration of a pollutant to a  
22 state property line standard, background concentrations of the  
23 pollutant are not added to the modeled concentration, correct?

24 **A** That's correct.

25 **Q** You compare the modeled concentration of some pollutants to

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1 the National Ambient Air Quality Standards?

2 **A** That's correct.

3 **Q** In comparing the modeled concentrations of pollutants to  
4 National Ambient Air Quality Standards, you do first add  
5 background concentrations to the modeled concentrations?

6 **A** Yes.

7 **Q** All right. Now, sticking with the National Ambient Air  
8 Quality Standards that you compare the modeling to, where did  
9 Sage get its information on background concentration of  
10 pollutants?

11 **A** From several sources. The first cut is to use the Harris  
12 County default value which is a very conservative value. And we  
13 also use TCEQ and EPA web sites to obtain that information.

14 **Q** None of the background concentration of pollutants you used  
15 is located in the -- is based on monitoring inside the Baytown  
16 Complex itself, correct?

17 **A** That's correct.

18 **Q** You've heard of the Houston regional monitoring network?

19 **A** Yes, sir.

20 **Q** Sometimes that goes by the acronym HRM?

21 **A** Yes.

22 **Q** It is not Sage's practice to ask Exxon for HRM data when it  
23 models emissions events at Baytown, correct?

24 **A** That's correct. We use the website data from TCEQ and EPA.

25 **Q** The monitoring stations used to generate the background



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1 concentration data can be miles away from the Baytown Complex?

2 **A** Yes.

3 **Q** It is possible for emissions from the Baytown Complex to  
4 travel several miles?

02:25:30 5 **A** The model will predict concentrations as far out as you  
6 tell it to predict it.

7 **Q** Well, my question to you is it is possible for emissions  
8 from the Baytown Complex to travel several miles, correct?

9 **A** If you're asking me if the answer is zero, yes, it's  
02:25:48 10 possible that emissions could travel several miles. They would  
11 be very dilute at that point.

12 **Q** Those are the only questions I have. Thank you.

13 **A** Thank you.

14 MR. NICHOLS: May I proceed, Judge?

02:26:05 15 THE COURT: Yes.

16 CROSS EXAMINATION

17 BY MR. NICHOLS:

18 **Q** Mr. Parmley, I want to give the Court a little bit more of  
19 your background and experience. Have we marked a copy of your  
02:26:14 20 resume or CV in evidence in the case?

21 **A** Yes.

22 MR. NICHOLS: Your Honor, I'm going to show the Court  
23 what's been marked as Defendants' Exhibit 186 and Defendants'  
24 Exhibit 186 is a copy of Mr. Parmley's resume.

02:26:26 25 //

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1 BY MR. NICHOLS:

2 **Q** And the first page of Defendants' Exhibit 186, does it set  
3 out kind of in narrative form your experience?

4 **A** Yes.

02:26:39 5 **Q** And does it refer to your 30 years in air quality  
6 consulting?

7 **A** Yes.

8 **Q** And in the second sentence, is atmospheric dispersion  
9 modeling mentioned?

02:26:59 10 **A** Yes, it is.

11 **Q** So the Court might know, in terms of your education, is  
12 your education listed on the -- back on page 4 of Defendants'  
13 Exhibit 186? Does that show your degrees?

14 **A** Yes, that's correct information.

02:27:12 15 **Q** And you have two bachelor of science degrees; is that  
16 correct?

17 **A** That's correct.

18 **Q** Both from the University of Texas?

19 **A** That's correct.

02:27:20 20 **Q** Now, sometimes it's hard enough for one person to get one  
21 bachelor of science degree. Why did you get two?

22 **A** The first degree was, essentially, a free medical degree;  
23 but I decided to go the engineering route.

24 **Q** So is that when you, in essence, changed majors and  
02:27:38 25 obtained your Bachelor of Science in Engineering Science?

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02:27:57 1 **A** Well, back in those days, you weren't allowed to change  
2 your major. Your parents wouldn't let you. I had to finish  
3 that first degree so my parents could say, "Okay, we've done  
4 it." But I did go back on my own and pick up the engineering  
5 degree after that.

6 THE COURT: How many more years was it, a couple,  
7 about two more years?

8 THE WITNESS: Yeah. It was about two and a half to  
9 three years. You have to go through all the basic engineering  
02:28:05 10 courses. It was -- this degree was about half civil and half  
11 chemical engineering.

12 BY MR. NICHOLS:

13 **Q** So after 1976 from your parents' perspective, were you  
14 pretty much on your own?

02:28:15 15 **A** I was.

16 **Q** And then you list here also -- you've got --

17 THE COURT: Nowadays they never get off the payroll.  
18 They changed from our generation. It changed.

19 THE WITNESS: Don't get me started.

02:28:26 20 BY MR. NICHOLS:

21 **Q** On the first page of your resume, it has the designation of  
22 "P," period, "E," period, behind your name; is that correct?

23 **A** That's correct.

24 **Q** And does that refer to a particular registration or license  
02:28:37 25 that you carry?

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1 **A** It's a professional engineering registration.

2 **Q** And for how long have you carried that professional  
3 engineering registration?

4 **A** Over 25 years.

02:28:50

5 **Q** And also, the Court will have this at the Court's leisure.  
6 But does this also list various publications that you published  
7 in the area of monitoring and modeling of air dispersion?

8 **A** Yes, it does.

02:29:12

9 **Q** And does that list of publications extend over to page 5 of  
10 your CV?

11 **A** Yes, sir, it does.

12 **Q** Now, with respect to your experience in this area, have you  
13 done work for TCEQ or its predecessor agency?

14 **A** Yes, I have.

02:29:27

15 **Q** And did the TCEQ -- was it formerly known -- I'm looking at  
16 page 3 of your resume. Was it formerly known as the Texas Air  
17 Control Board?

18 **A** Yes, it was.

02:29:39

19 **Q** And just tell the Court very briefly what type of work you  
20 did with the Texas Air Control Board which was a predecessor  
21 agency to TCEQ?

02:29:59

22 **A** Well, we looked at various control strategies for  
23 controlling VOC in the Houston area, non-containment area. So,  
24 they were considering various rules to implement and wanted to  
25 know the effectiveness that those rules would have on the air

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1 shed in the Houston area. So we did various studies on  
2 different controls and did modeling to predict air quality  
3 improvements if those rules went into play.

02:30:18 4 **Q** And you indicate here that that work was part of the Texas  
5 SIP development process. Does the SIP refer to something the  
6 Court's heard about before called the State Implementation Plan?

7 **A** Yes, sir. That is the State Implementation Plan.

8 **Q** And then have you also contributed some service to the  
9 Environmental Protection Agency?

02:30:34 10 **A** Yes, besides working there for about a year and half, two  
11 years after I graduated, I've done some work for them as well.

12 **Q** And just break that down for the Court. What did you do  
13 for the EPA when you worked for them?

14 **A** We -- that was before the TCEQ got delegation or prevention  
02:30:53 15 of significant deterioration or the PSD rules, permitting rules.

16 THE COURT: Permitting, your word was permitting,  
17 correct?

18 THE WITNESS: That's correct, your Honor. That's the  
19 short answer. I worked with permitting.

02:31:12 20 BY MR. NICHOLS:

21 **Q** And then -- so when you worked there -- and then later, you  
22 indicate in your resume you served as a control technology  
23 specialist for Region 6; is that correct?

24 **A** That's correct.

02:31:22 25 **Q** And just describe to the Court briefly what that involved.

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1 **A** It was very similar work to what I just described with the  
2 VOC work. We would evaluate potential regulations that were  
3 being developed and assess the effectiveness that those  
4 regulations would have if they were put into legislation.

02:31:43

5 **Q** Okay. Now, before the lunch break, you heard me tell the  
6 Court that we were going to run through a little bit of a  
7 tutorial on air dispersion modeling. Are you prepared to do  
8 that with the Court?

9 **A** Sure. I'll give it a try.

02:31:56

10 **Q** And have you prepared some slides that -- that you want to  
11 talk from as part of doing this tutorial?

12 **A** Yes.

13 MR. NICHOLS: And, your Honor, just for the record,  
14 we've marked these slides as Defendants' Exhibit 1018.

02:32:21

15 MR. NICHOLAS: Has this been previously -- I don't  
16 believe we have this, your Honor. Has this been -- I don't  
17 believe this has been previously disclosed.

18 MR. NICHOLS: No. We're providing it now.

02:32:39

19 MR. NICHOLAS: In that case we object to its use. It  
20 was not put on the exhibit list. This is Defendants' own  
21 exhibit. He was listed on the Defendants' witness list as  
22 someone they were going to call, and we've never seen this and  
23 are unable to use it for cross examination or absorb it now.  
24 And we ask that it not be used, and it be stricken.

02:32:57

25 MR. NICHOLS: Your Honor, this is a demonstrative aid

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1 that is used all the time.

2 THE COURT: How long have you had this?

3 MR. NICHOLS: I think we completed doing this work  
4 this week, your Honor, based on the evidence that's come into  
02:33:09 5 the trial. This is a demonstrative exhibit.

6 THE COURT: It's not coming into evidence, or are you  
7 going to put it into evidence?

8 MR. NICHOLS: No, it's strictly being offered as a  
9 demonstrative aid for the Court.

02:33:21 10 MR. NICHOLAS: Your Honor, this is a tutorial. It is  
11 not something that's based on new evidence that came out of the  
12 trial. I don't think there is one thing in here that -- I don't  
13 even know where it is because I can't -- I can't figure it out,  
14 but I don't believe that it's anything based on this week's  
02:33:35 15 testimony.

16 THE COURT: All right. What we're going to do is  
17 this: something unique. I'm going to sit up here and flip  
18 through all the pages. I'm giving you a few minutes. I'm going  
19 to leave Mr. Nichols time running. Okay. Take a look through  
02:33:45 20 it. Have your folks take a look through it and see if there is  
21 anything absolutely objectionable. Again, you're under no time  
22 frame, although I'm sitting here watching you.

23 Do you have a copy of -- another one,  
24 Mr. Nichols?

02:34:12 25 MR. NICHOLS: I've given them two. I have another

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1 one.

2 THE COURT: Yeah. If you have another one, I'll take  
3 one.

4 MR. NICHOLS: I think you just trumped me, Judge.

02:34:26 5 THE COURT: I'm sorry.

6 Yes, sir.

7 MR. NICHOLAS: Your Honor, could I have the -- is the  
8 ELMO -- your Honor, we do object to it. There was an expert  
9 disclosure. I don't see this material in the expert disclosure.  
02:36:18 10 For instance, something like this, something like this, which I  
11 don't feel we have legitimate opportunity to use to cross  
12 examine. Something like this we have not been provided with.  
13 Something along the lines of this magnitude and frequency, this  
14 is -- I don't believe this is anywhere in the disclosure.

02:36:50 15 I don't know what this is. And there's a number  
16 of examples of that. Here's another page. I think this is  
17 unfair, and we ask that it not be used and be stricken. This is  
18 beyond tutorial and demonstrative evidence. This is meat and  
19 potatoes. Nobody is going to be able to use it to cross examine  
02:37:20 20 on the fly, and it violated the Rule 26 disclosure requirements.

21 MR. NICHOLS: Your Honor, this gentleman was  
22 designated as an expert in air dispersion modeling for the first  
23 time on March the 15th of 2012. He has provided a total of  
24 three reports. The Plaintiffs have had an opportunity to depose  
02:37:41 25 him on whatever subjects they wanted to depose him on air



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1 dispersion modeling issues.

2           The tutorial that we're going to go through is  
3 strictly for the purpose of having the Court -- trying to  
4 articulate to the Court what air dispersion modeling is, which  
5 is a subject that has been in the case from very early on.  
6 Mr. Parmley has produced a number of reports which are in  
7 evidence, and the purpose of this tutorial is merely to aid the  
8 Court to the extent it's helpful to the Court in understanding  
9 what the air dispersion modeling is, what it does, and how it's  
10 constructed.

11           MR. NICHOLAS: Your Honor, precisely because they made  
12 the disclosures in March of 2012 and precisely because I deposed  
13 Mr. Parmley, I know this material wasn't disclosed, and I know  
14 that it would be --

15           THE COURT: Was or was not disclosed?

16           MR. NICHOLAS: Was not.

17           THE COURT: What -- I looked through it quickly, okay.  
18 There's a number of sheets there that have complex formulas.

19           MR. NICHOLS: It is strictly for the purpose of  
20 illustrating how air dispersion modeling is done.

21           THE COURT: All right. Now, what I would suggest to  
22 you -- and, again, I'm going to keep the time running. First of  
23 all, if I allow any of it in, it's their time. Their time is  
24 clicking off. Number two, I suggest you go talk to your folks,  
25 pull out some of that stuff and give me just a basic

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1 understanding of what this man does for a living.

2 MR. NICHOLS: Yes, sir.

3 THE COURT: Not how it applies to this case, all  
4 right? Some of it there, I agree with Mr. Nicholas, has too  
02:39:16 5 much in it; and if it moves up the line -- because I assume  
6 you're going to have it marked, at least, if you feel that  
7 strongly. It's not coming into evidence, right?

8 MR. NICHOLS: No, it's not. It's not the intent.

9 THE COURT: But I agree that there's a concern with  
02:39:27 10 some of the formulas and so forth there that I probably don't  
11 need and you probably don't want in the record anyhow. So I'm  
12 going to give them a few minutes, again, or I'll see what he  
13 uses as I look at it up there.

14 I'm just saying that some of the stuff -- I don't  
02:39:44 15 need a full explanation and I don't think you need to get into  
16 it. I just need to know what this man does for a living --

17 MR. NICHOLS: Yes, sir.

18 THE COURT: -- and what his science is. Then we need  
19 to apply it to the case.

02:39:55 20 MR. NICHOLS: Yes, sir.

21 THE COURT: I assume what you're showing has no  
22 application to the case. It's just what the science is; is that  
23 correct?

24 MR. NICHOLS: It's what the science and the technique  
02:40:03 25 of air dispersion modeling is and how that in our humble

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1 estimation would help the Court in understanding the kind of  
2 work that Mr. Parmley does.

3 THE COURT: That's all I'm going to consider it for;  
4 but I think that, in effect, there's something in there that's  
02:40:16 5 much too technical. And if it even gets its foot in the door,  
6 they may have some grounds. So, that's all I want to do. And  
7 if you want, you can then also get copies of what goes up on the  
8 screen, if you need to make a record on it. I understand your  
9 position completely.

02:40:32 10 MR. NICHOLAS: Thank you.

11 MR. NICHOLS: All right. Could we have our computer  
12 side, Judge?

13 BY MR. NICHOLS:

14 Q So, with respect to air dispersion modeling, can you  
02:40:51 15 describe to the Court in your own words what an air dispersion  
16 model is.

17 MR. NICHOLS: Show the next slide, please.

18 THE WITNESS: An air dispersion model is a  
19 mathematical simulation of how pollutants disperse in the  
02:41:03 20 atmosphere.

21 BY MR. NICHOLS:

22 Q Now, Mr. Parmley, if you -- you've been working in the  
23 industry for about 30 years?

24 A Yes.

02:41:14 25 Q And if someone wants to evaluate a specific emissions event

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1 that has already happened and to try to determine what impacts,  
2 if any, that emissions event had on the surrounding community,  
3 what do you do?

02:41:39 4 MR. NICHOLAS: Objection. That is an open-ended,  
5 vague question not limited to air dispersion modeling.

6 THE COURT: Overruled.

7 THE WITNESS: I think the only thing you could do is  
8 to apply a computer air dispersion model. If it's happening,  
9 you can't make a measurement. You would have to do a  
02:41:54 10 simulation.

11 THE COURT: So, is it all theoretical or is it a  
12 combination of theory and practice?

13 THE WITNESS: Dr. Sahu described it last Friday as a  
14 physical model, and that's essentially what it is.

02:42:05 15 THE COURT: What does that mean?

16 THE WITNESS: It just applies some physics principles.

17 THE COURT: Now, physical -- when you say "physical,"  
18 you mean -- or are you saying "physics model"?

19 THE WITNESS: It's a physics model, yes.

02:42:16 20 THE COURT: Okay.

21 BY MR. NICHOLS:

22 Q Without getting into all the nuts and bolts of the models,  
23 do the computer models include mathematical algorithms?

24 A Yes, they do.

02:42:26 25 Q And what do these mathematical algorithms produce? What do

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1 they produce using the model?

2 **A** They predict an ambient air concentration.

3 THE COURT: Ambient meaning what? I think I know what  
4 it means but get it in the record.

02:42:40 5 THE WITNESS: Ambient meaning in the atmosphere.

6 THE COURT: At that time? At a certain time?

7 THE WITNESS: Yes, your Honor.

8 BY MR. NICHOLS:

9 **Q** And do these -- by using these mathematical algorithms, do  
02:42:51 10 the models fully simulate the pollution dispersion from that  
11 specific event?

12 **A** Yes.

13 THE COURT: And do people in your -- in your  
14 profession use set mathematical formulas to get there?

02:43:04 15 THE WITNESS: Yes. The models are very prescriptive,  
16 and the methodology and guidance surrounding how to use those  
17 models is very prescriptive.

18 BY MR. NICHOLS:

19 **Q** So, in other words, you've told the Court -- or someone has  
02:43:16 20 told the Court that you can literally download these models off  
21 of a website somewhere?

22 **A** That's correct. You can get them off the EPA website.

23 **Q** So, when -- if I were to get on -- heaven forbid I went on  
24 and tried to get one of these models off the website, would it  
02:43:31 25 already have all of these mathematical algorithms loaded into

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1 it, in essence?

2 **A** That's correct. We do not alter the model. We just apply  
3 the tool.

02:43:45

4 **Q** And then do you input things called variables into the  
5 model?

6 **A** Yes.

02:44:05

7 **Q** And once you have used this -- this program that has the  
8 preloaded mathematical algorithms and once you input variables  
9 into it, can the model then make a prediction of these  
10 off-property concentrations of pollutants?

11 **A** That is exactly what it does.

12 **Q** Now --

13 THE COURT: Is that generally accepted by the -- by  
14 the experts in your field?

02:44:15

15 THE WITNESS: Yes, your Honor, absolutely.

16 THE COURT: That's all I need.

17 THE WITNESS: Absolutely.

18 BY MR. NICHOLS:

02:44:22

19 **Q** And do -- is it just folks who work for industry that use  
20 these models?

21 **A** No. As I mentioned earlier, the agencies use them --  
22 they're used for a variety of reasons, for permitting, for  
23 events, for potential rule evaluation, effectiveness of rules, a  
24 variety of reasons.

02:44:38

25 **Q** And just give the Court an idea of how long have these

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1 models been around and how long have the regulators and people  
2 in the industry been using these kind of models?

3 **A** Since the '70s.

4 **Q** You've mentioned two particular types of models, and I

02:44:58 5 think the Court had some questions about this. You've mentioned  
6 a SCREEN3, correct?

7 **A** That's correct.

8 **Q** And let's go to the third bullet, please; and is that an  
9 acronym, S-C-R-E-E-N, Number 3?

02:45:14 10 **A** Yes, that's correct.

11 **Q** And then is there another one called the industrial source  
12 complex?

13 **A** Yes.

14 **Q** Or ISC?

02:45:21 15 **A** That's correct.

16 **Q** Who developed both of these models?

17 **A** They were developed by EPA.

18 **Q** And are both -- in essence, can you download them from the  
19 EPA?

02:45:30 20 **A** Yes.

21 **Q** And is that the version that you use, is the one that you  
22 obtained from EPA?

23 **A** Yes.

24 **Q** And the Court had a very specific question about -- about  
02:45:41 25 when you use the SCREEN3 and when you use SCREEN3 and the ISC.

1 So as we go through this discussion, I want to make sure we get  
2 to that point. First of all, in terms of the terminology, is  
3 there terminology in the model called ground level  
4 concentrations or GLCs?

02:46:05 5 **A** Yes. That's a term that dispersion modelers use.

6 **Q** What does that mean?

7 **A** Well, we're interested in the concentration at ground level  
8 because that's where the public has exposure, potential  
9 exposure. And, so, I mean, you could set a flag pole receptor  
02:46:22 10 that wasn't at ground level or if somebody had a penthouse or  
11 something and you were interested in concentration at an  
12 elevated receptor, you could do that; but generally, we're  
13 interested in ground level concentrations.

14 **Q** Where the people are?

02:46:35 15 **A** Where the people are.

16 **Q** And then there is also something called air comparison  
17 values. So what are air comparison values, and why are they  
18 important in terms of doing this air dispersion modeling work?

19 **A** Once we predict a concentration with a model, we need to  
02:46:56 20 compare it with a metric; and the metrics that are the precedent  
21 in this industry are the National Ambient Air Quality Standards  
22 developed by EPA. They're reviewed every five years. So those  
23 are the standards; and that's a bright line, Judge. That's not  
24 the screening level. That is a standard.

02:47:15 25 **Q** And, so, we have up on the screen the NAAQS. And are those



1 developed by the EPA?

2 **A** That's correct.

3 **Q** And when you say, "This is a standard as opposed to a  
4 screening level," what do you mean? What does it mean to be a  
5 standard?

02:47:30

6 **A** It's a bright line. It's not we're going to look at the  
7 situation and do a case-by-case review, if you're a little bit  
8 above or a little bit below. It is a standard. Now, the  
9 standard has some complex design features sometimes built into  
10 it; and I don't think you want me to go into that. I'll be glad  
11 to if you want me to but it is a bright line.

02:47:48

12 **Q** So bottom line when you use the model, input your variables  
13 and produce through the model predicted ground level  
14 concentrations, are those expressed, as we'll see in a minute,  
15 as numbers, in other words, values, predicted values?

02:48:10

16 **A** Yes.

17 **Q** And once you have those predicted values, can you then  
18 compare those against the relevant NAAQS, the National Ambient  
19 Air Quality Standards?

02:48:24

20 **A** Yes.

21 **Q** And are there National Ambient Air Quality Standards for  
22 various types of pollutants?

23 **A** Yes, there are for the criteria.

24 **Q** So literally, can you look at what your predicted  
25 concentration is from a particular event off-site and the NAAQS

02:48:36

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1 and decide whether the predicted concentration is higher or  
2 lower than the NAAQS?

3 **A** Yes.

4 **Q** Now, do you just stop with the NAAQS or do you actually use  
5 some screening levels as well?

6 **A** We use some screening levels as well.

7 MR. NICHOLS: Can we have the next bullet, please.

8 BY MR. NICHOLS:

9 **Q** And are these called effect screening levels?

10 **A** Yes, they're developed by TCEQ.

11 **Q** Now, can you describe for the Court in general terms the  
12 difference between an effect screening level, or ESL, and the  
13 NAAQS?

14 **A** Yes. The screening levels are just what the name implies.  
15 They're a level below which no further review is needed, a level  
16 above which additional review is needed; and they're usually set  
17 at about one one-hundredth of industrial standard for a  
18 short-term exposure.

19 MR. NICHOLAS: Objection.

20 THE COURT: What?

21 MR. NICHOLAS: Actually, I would like to voir dire the  
22 witness.

23 THE COURT: Go on.

24 //

25 //

Parmley - Voir Dire/Nicholas

1 VOIR DIRE EXAMINATION

2 BY MR. NICHOLAS:

3 **Q** Mr. Parmley, do you recall that I took your deposition?

4 **A** Yes.

02:49:40 5 **Q** And do you recall that I asked -- I asked you whether  
6 you're offering an opinion on how TCEQ and EPA modeling  
7 guidelines were established? Do you recall that?

8 **A** No, I don't remember that offhand.

9 **Q** Okay. Well, I asked you, "You were not" -- I asked you on  
02:50:18 10 page 140, "You are not offering" -- let's see, 140, top line,  
11 "You are not offering an opinion on how those guidelines were  
12 established, correct?"

13 "Yeah, I guess that's correct," referring to  
14 above. You're talking about the TCEQ and EPA guidelines.

02:50:43 15 **A** And what I intended to mean by that is I'm not offering an  
16 opinion of the epidemiological or other medical evidence upon  
17 which they're established; but it's common knowledge that once  
18 the industrial standards are established, TCEQ generally takes  
19 one one-hundredth of that value for a short-term standard and a  
02:51:08 20 one one-thousandth for an annual standard.

21 That's not -- in a sense you could say that's how  
22 they're established. What I was thinking you were asking is am  
23 I offering any toxicological opinions, and the answer to that is  
24 no.

02:51:23 25 MR. NICHOLAS: Your Honor, there's no indication that

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1 he -- he was not designated to talk about -- to testify about  
2 how these screening levels were set or how they were arrived at  
3 by TCEQ or ESL. I believe they've got -- they've got plenty of  
4 other experts, and I believe that's straying into their area.

02:51:41

5 And I believe Mr. Parmley is able to testify,  
6 perhaps, about how he uses SCREEN3, how he uses the model, the  
7 inputs, the outputs. I do not believe he's been designated or  
8 qualified to talk about how the models were created, how those  
9 screening levels were set, what the -- what the public health  
10 impact of any of that would be; and I think this is straying far  
11 from what he's been designated to testify about.

02:52:04

12 MR. NICHOLS: I haven't even offered any testimony  
13 concerning the scientific --

14 THE COURT: Are you going to offer any of this stuff  
15 he said?

02:52:17

16 MR. NICHOLS: All I'm --

17 THE COURT: Through this witness, yes or no?

18 MR. NICHOLS: I'm not offering any of the stuff that  
19 he said in terms of the toxicological basis.

02:52:25

20 THE COURT: I sustain the objection. Sustained.

21 Let's move on.

22 CROSS EXAMINATION

23 (continued)

24 BY MR. NICHOLS:

02:52:27

25 Q From the standpoint of the effect screening level, you

1 mentioned to the Court that if it doesn't exceed the effect  
2 screening level, you don't need to do any further examination.  
3 What do you mean by that?

02:52:44

4 **A** Well, there are several tiers that TCEQ establishes for  
5 evaluating a predicted model concentration against an ESL, and  
6 the first tier is just exactly what you said. It's are you  
7 above the ESL or not? If you're below the ESL, the modeling is  
8 completed, and you've made your demonstration.

02:53:07

9 **Q** So is there any -- if the modeled concentration, the  
10 off-site concentration, falls below the ESL established by TCEQ,  
11 does TCEQ require any further analysis with respect to that  
12 modeling?

13 **A** None.

02:53:32

14 **Q** If you're above an ESL for a particular pollutant at a  
15 modeled concentration off-site, are you sometimes required to do  
16 additional modeling?

17 **A** At that point you would evaluate how the land used is near,  
18 whether it's industrial or non-industrial land use.

02:53:51

19 **Q** And explain to the Court why. Why are you looking at  
20 whether it's industrial or non-industrial land use?

21 **A** Well, industrial land use is -- is generally established  
22 for, you know, healthy working population.

02:54:10

23 MR. NICHOLAS: Objection. This is again getting into  
24 the area of how they're setting the screening levels, how the  
25 modeling is -- how the modeling was arrived at. And Mr. -- I

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1 think we've all agreed now that this is not what Mr. Parmley is  
2 going to testify about.

3 THE COURT: Overruled.

4 THE WITNESS: So industrial land is going to have  
02:54:23 5 exposure from a healthy working population. Non-industrial land  
6 may not.

7 BY MR. NICHOLS:

8 Q And without -- you're not testifying as to how those levels  
9 get set, correct?

02:54:33 10 A No, sir, I'm not. I'm just telling you --

11 THE COURT: Hold it. You're not.

12 Next question.

13 BY MR. NICHOLS:

14 Q But did you apply these different types of levels each and  
02:54:41 15 every day in your job?

16 A That's correct.

17 Q Okay. And with respect to the inputs --

18 MR. NICHOLS: Could we go to the next slide, please.

19 BY MR. NICHOLS:

02:54:48 20 Q So to do the model --

21 MR. NICHOLS: Let's go ahead and click on all those  
22 bullets, please.

23 BY MR. NICHOLS:

24 Q And with respect to these first four bullets, can you just  
02:55:09 25 kind of walk the Court through in terms of the input data that

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1 you need. Do you need information on emission rate?

2 **A** Yes, you do. Pounds per hour --

3 THE COURT: Where do you get that from?

4 THE WITNESS: I get that from Exxon who's --

02:55:23

5 THE COURT: Now, I've heard a lot of the statistics  
6 you get from the producer, right, the producer of this? Is that  
7 usual in the industry? I think you've answered it already  
8 but --

9 THE WITNESS: Yes, your Honor.

02:55:35

10 THE COURT: -- it comes from the production company,  
11 from the -- from the refinery in this case.

12 THE WITNESS: Yes, your Honor. They have  
13 instrumentation to measure the flow to the flares and things  
14 like that.

02:55:44

15 THE COURT: That's the normal in the whole industry.

16 THE WITNESS: Yes, sir.

17 THE COURT: Go on.

18 BY MR. NICHOLS:

02:55:51

19 **Q** And there was some discussion with Dr. Sahu that the Court  
20 was engaged in last week, and there was some discussion about  
21 whether there is hourly, such hourly information. In other  
22 words, does the ExxonMobil facility maintain hourly data on  
23 flow?

24 **A** Yes.

02:56:04

25 **Q** And do you, in fact, use that hourly data as part of your

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1 work?

2 **A** We do. We isolate the worst case hourly concentration or  
3 flow for each compound of interest.

02:56:19

4 **Q** So describe that for the Court. When you say you use the  
5 worst case of the hourly flow, what do you mean by that?

6 **A** In times we've even taken it down to one minute rolling  
7 averages and got the worst 60 of those one minutes. So when we  
8 put our emission rate into the model, it's the worst emission  
9 rate that could possibly happen from that event.

02:56:41

10 **Q** Even though that emission rate didn't happen during the  
11 whole event?

12 **A** Correct.

13 **Q** Why do you do that?

02:56:54

14 **A** It's part of the TCEQ philosophy for modeling which we  
15 follow. The second -- the very first --

16 THE COURT: When you say, "We follow," who is that?

17 THE WITNESS: I'm sorry, the --

18 THE COURT: Your company?

02:57:02

19 THE WITNESS: My company, but more than that, your  
20 Honor, the dispersion modelers that do what I do in the field,  
21 the TCEQ directs us to do the most conservative simple model  
22 that will pass the air quality guidelines, the air quality  
23 standards.

24 BY MR. NICHOLS:

02:57:20

25 **Q** And how does -- how does doing things like that -- how does



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1 taking the worst case assumption of what happened during that  
2 event and feeding it into the model, how does that play into the  
3 whole concept of screening?

02:57:40

4 **A** It gives you a concentration that you know will never be  
5 achieved in actuality. So it gives them a great deal of  
6 confidence that if this concentration is under an ESL or under a  
7 standard that it's an extremely conservative value.

02:58:03

8 **Q** So in other words, if you model it out using the worst case  
9 of emission rate and it's still below the ESL, is that important  
10 in terms of providing people with comfort about the results?

11 **A** Yes.

12 **Q** And then with respect to the second bullet, emission  
13 release information, what type of emission release information  
14 do you need, Mr. Parmley, to go into these models?

02:58:17

15 **A** You need a variety of information to characterize the  
16 nature of the emission release. If it's -- we characterize  
17 emissions as either coming from a point source, if they're  
18 one-dimensional like a stack. We characterize them as an area  
19 source if they're flat like this table top, like maybe a pond or  
20 lagoon. Or if they have a three-dimensional release, we can  
21 even do a volume source.

02:58:43

22 And with the point source with the stack, the  
23 amount of plume rise that the plume attains before it begins to  
24 disperse and go back to the ground level is very important to  
25 the overall amount of dispersion. And that's determined by

02:59:02

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1 heat, thermal buoyancy or momentum.

2                   So it's the idea that hot air rises. The hotter  
3 the air, the higher it's going to go before it begins to  
4 disperse down to ground level or the theory that the momentum of  
5 the stack, the gasses rushing out of the stack were going to  
6 drive the plume up to a certain height before it begins to  
7 disperse.

8 **Q** And is that -- the flare plume, in essence, is it an  
9 important fact to factor into the computer simulation, the  
10 modeling of where pollutants would go after they come out of  
11 that plume?

12 **A** Yes.

13 **Q** Now, you've got -- the third item you list there is called  
14 the "receptor location information." And what did you mean by  
15 that?

16 **A** That's just a point that we're telling the model to  
17 calculate in concentration.

18 **Q** And before we get too far, do you remember you were asked  
19 certain questions by Mr. Nicholas about flare stack height?  
20 Remember he showed you Plaintiffs' Exhibit 459 and asked you  
21 about getting some corrected flare height information? Do you  
22 recall those questions?

23 **A** Yes, I do.

24                   MR. NICHOLS: And, your Honor, if I could just have  
25 the ELMO back, put that back up here.

1 BY MR. NICHOLS:

2 Q And I'm going to highlight the two entries that  
3 Mr. Nicholas talked to you about. Talked to you about a  
4 situation here with respect to an event January 1, 2006, Flare  
03:00:44 5 26, originally modeled at 50 feet of flare height and then  
6 remodeled at 263.5?

7 A That's correct.

8 Q And we didn't get all the way over here to the right. But  
9 when you include that updated flare height in the revised  
03:01:06 10 modeling, what happens?

11 A Well, for that particular flare, the concentration would  
12 decrease by a little over 70 percent.

13 Q So explain that to the Court in general. Why would an  
14 emissions point being higher up in the air -- why would that  
03:01:23 15 result in a situation where your modeled ground level  
16 concentrations are lower?

17 A Well, the higher up in the air the stack is, the greater  
18 distance the plume has to travel to reach ground level. And the  
19 greater the distance a plume travels to get to ground level, the  
03:01:44 20 greater the dispersion.

21 Q Okay. And then the other one that Mr. Nicholas pointed to  
22 was June 20, 2006, originally modeled at a height of 248 feet  
23 and then remodeled at 201, correct?

24 A Correct.

03:02:00 25 Q And then this would show an increase in -- is that in

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1 ground level concentration?

2 **A** For that particular flare, it went from 2.06 to 2.877.

3 **Q** So it went up by 39 -- a little less than 40 percent,  
4 correct?

03:02:19 5 **A** That's correct.

6 **Q** Now, you did -- all these events for which you remodeled on  
7 the basis of updated flare stack height information, did you  
8 look, Mr. Parmley, at whether or not those updated flare stack  
9 heights made any difference in terms of screening out situations  
10 where something -- an off-site concentration went above an ESL  
11 as opposed to below?

12 **A** Yes, I did.

13 **Q** What did you find out?

14 **A** That none of these flare height changes fundamentally  
15 changed the answer. None of the changes resulted in a situation  
16 where before the flare event, it was under a NAAQS and after, it  
17 was over a National Ambient Air Quality Standard. And none of  
18 the changes changed whether an ESL prediction would have been  
19 acceptable under TCEQ guidance.

03:03:23 20 THE COURT: How long did it take for you to get the  
21 corrected results, said, "Oh, we made a mistake and this is what  
22 it ought to be"?

23 THE WITNESS: Your Honor, I think there were almost 50  
24 events that we remodeled. So the models were already set up,  
03:03:38 25 and we still had them in our records. So it was a matter of no

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1 more than a few days' work.

2 THE COURT: Now, when was the notice to you? In other  
3 words, when they realized that the stack was different, how long  
4 after you got your first report to the -- that amended one?

03:03:56 5 THE WITNESS: I can't tell you exactly, but I'm  
6 guessing it was about two weeks.

7 BY MR. NICHOLS:

8 Q And did it, basically, involve changing that input -- that  
9 input variable that we've talked about in the model that you  
03:04:09 10 already had set up?

11 A Correct.

12 Q And then seeing what the results were?

13 A That's correct.

14 MR. NICHOLS: Your Honor, could we go back to the  
03:04:16 15 overhead, please.

16 BY MR. NICHOLS:

17 Q Now, we've already talked about the fact that this material  
18 flow data is going to come by -- through the ExxonMobil  
19 instrumentation, correct? And then we've got a note for STEERS  
03:04:41 20 data. Do you ever use STEERS data as part of your analyses, as  
21 well?

22 A Yes. Keep in mind that Exxon had a requirement to report  
23 to TCEQ within 24 hours of the event. So they did a  
24 calculation -- emission calculations that went into the STEERS  
03:04:54 25 report and then -- and then they -- I think they have an

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1 opportunity over the next two weeks to update the STEERS report  
2 if they find additional information. So by the time I get this  
3 information, the emissions calculations have pretty thoroughly  
4 been gone over; and they were available to me.

03:05:11 5 Q All right.

6 MR. NICHOLAS: Objection to the extent that he's  
7 referring to TCEQ going over the emission rate information.  
8 That's without foundation.

9 THE WITNESS: I'm sorry, your Honor. I didn't -- if I  
03:05:22 10 said TCEQ going over the emission information, I misspoke.

11 BY MR. NICHOLS:

12 Q You didn't. And you just need to be -- the Court has an  
13 objection before him so --

14 THE COURT: No, no. Yeah. How do you correct -- you  
03:05:35 15 heard the objection. Let's do it this way. You've made an  
16 error, and you said in your statement Mr. Nicholas said that --

17 THE WITNESS: I didn't think I did, but apparently  
18 Mr. Nicholas thought I did.

19 MR. NICHOLS: He spoke in the passive voice. He said  
03:05:47 20 that this information had been pretty thoroughly reviewed.  
21 Mr. Nicholas interpreted that as being testimony from him that  
22 the TCEQ was referring to it, was reviewing it when, in fact, I  
23 believe --

24 BY MR. NICHOLS:

03:05:58 25 Q I don't want to speak for you. I think you're referring to

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1 the fact that ExxonMobil has gone over that, correct?

2 **A** That's correct.

3 MR. NICHOLAS: Okay.

4 THE COURT: Thank you.

03:06:05 5 MR. NICHOLS: Next slide, please.

6 BY MR. NICHOLS:

7 **Q** And then you mentioned source types. Let's go through  
8 those real quick. You talk about point source. That's a  
9 particular point such as a flare stack?

03:06:15 10 **A** That's the traditional stack, yes.

11 **Q** And then you also mentioned area sources as well as volume  
12 sources. Now, with respect to your work in this case, is it  
13 primarily using point sources?

14 **A** Primarily, yes.

03:06:28 15 **Q** All right.

16 MR. NICHOLS: Next.

17 BY MR. NICHOLS:

18 **Q** And then this is where we're going to go through real  
19 quick. But are you able to model flares using parameters that  
03:06:42 20 are built into the model?

21 **A** No.

22 **Q** What do you have to do in the case of flares to model those  
23 out?

24 **A** In the case of flares, you have to determine an effective  
03:06:58 25 diameter to get the final plume rise that we talked about to

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1 equal the hot source plume rise in the Briggs equation.

2 **Q** We're not going to get into all the details of the Briggs  
3 equation. Are there methods that are accepted in the industry  
4 for calculating the flare plume?

03:07:15 5 **A** Yes.

6 **Q** Do you follow those methods?

7 **A** Yes, we do.

8 MR. NICHOLS: All right, next slide.

9 THE COURT: Calculating the flare plume, calculating  
03:07:25 10 what in the flare plume, the size of it?

11 THE WITNESS: In reality, your Honor, we're  
12 calculating the final plume rise.

13 THE COURT: The plume of what, the gasses?

14 THE WITNESS: The gasses that are being released.

03:07:35 15 THE COURT: What is the definition of plume rise?

16 THE WITNESS: It's the height above the stack that the  
17 pollutants go before they begin to disperse to ground level.

18 THE COURT: Okay. All right.

19 THE WITNESS: And because these things are burning at  
03:07:48 20 the end of a flare, there's a lot of hot -- a lot of hot gasses.  
21 It's the heated combustion.

22 THE COURT: I get that much. I get -- okay. Go on.

23 THE WITNESS: So plume rise of these flares is  
24 determined by the heated combustion.

03:08:03 25 MR. NICHOLS: And so we have --



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1 THE COURT: I will say I had a year and half of  
2 engineering school. That was about the extent of it. Then I  
3 went to law school -- then I went to prelaw.

4 MR. NICHOLS: Then we lost --

03:08:10

5 THE COURT: That's why when I see, what is it, an  
6 equation like that, it gives me memories.

7 MR. NICHOLS: When we went into law, we forgot  
8 everything technical that we ever knew, right, Judge?

9 THE COURT: It comes close.

03:08:26

10 BY MR. NICHOLS:

11 **Q** So then with respect to the final plume rise, just to  
12 reinforce what you're talking about, there are a couple of  
13 factors that go underneath that. Let's show those. You talked  
14 about thermal buoyancy and also the momentum, the velocity and  
15 volume. Do both of those factors play into this calculation of  
16 the final plume rise?

17 **A** Yes.

18 MR. NICHOLS: Next slide.

19 THE WITNESS: Yes.

03:08:41

20 By MR. NICHOLS:

21 **Q** Now, we talked earlier about receptors. Just so the Court  
22 might know, are these physical receptors that are out there on  
23 the ground somewhere?

24 **A** No. It's just a point in space that we're asking the  
25 models to calculate the concentration for.

03:08:55

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1 THE COURT: It's not the guy who's down there sniffing  
2 the gas, right? That's an interesting job.

3 Okay. Well, whatever he was sniffing, I remember  
4 that. Not enough to be dangerous. Go on.

03:09:08

5 MR. NICHOLS: He saw some pictures, I think, too,  
6 Judge.

7 BY MR. NICHOLS:

8 Q So in terms of your receptor grid, let's look at these next  
9 two bullets, please.

03:09:16

10 So when you talk about the maximum GLC at  
11 industrial facilities and areas of public access, what are we  
12 talking about?

13 THE COURT: GLC is what?

14 THE WITNESS: The ground level concentration.

03:09:26

15 THE COURT: Okay.

16 THE WITNESS: We wanted to get the -- we want to  
17 isolate that maximum ground level concentration. So, it's  
18 important that we have receptors at the fence line and in the  
19 neighborhoods that are commercial areas as well.

03:09:40

20 THE COURT: Just for the record -- I understand it  
21 now, but just for the record, when you're dealing with this,  
22 it's all a mathematical input. It's not people or instruments  
23 there, correct?

24 THE WITNESS: Absolutely correct.

03:09:52

25 //

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1 BY MR. NICHOLS:

2 **Q** So just to reinforce that, the work that you do, you  
3 understand that in certain circumstances a facility could have  
4 people literally standing downwind from an event with handheld  
03:10:04 5 monitors to monitor the air quality downwind of a particular  
6 event. Do you understand that's done from time to time?

7 MR. NICHOLAS: Objection. Again, this is beyond the  
8 scope of his testimony.

9 THE COURT: I think I understand. Could have somebody  
03:10:16 10 but it's done mathematically, right, for this profession for  
11 your specialty, okay.

12 THE WITNESS: Yes, sir.

13 BY MR. NICHOLS:

14 **Q** So -- and then you also talk about the fence line extending  
03:10:26 15 past the point of decreasing ambient concentrations. What do  
16 you mean by that?

17 **A** Well, we want to make sure we have receptors far enough out  
18 that we actually see the concentrations begin to decrease. That  
19 way we know that we captured the peak concentration.

03:10:42 20 THE COURT: Isn't that what you're, basically,  
21 interested in as far as the public goes beyond the fence line?

22 MR. NICHOLS: So if we go to the next screen -- and  
23 again, this is not based on --

24 MR. NICHOLAS: Objection. Again, this is -- we've  
03:10:53 25 never seen this slide.

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1 THE COURT: Sustained.

2 Let's move to the next slide.

3 MR. NICHOLAS: Objection. Never seen the slide.

4 THE COURT: Safest way to do it, move it to the next  
03:11:04 5 one.

6 MR. NICHOLS: Sure.

7 BY MR. NICHOLAS:

8 Q So, just tell the Court literally in the output from your  
9 model, your SCREEN3 model, for example, are you actually  
03:11:14 10 modeling Xs that go out from the emissions point that you call  
11 receptors?

12 A Yes. If you mean Xs by locations, yes.

13 Q Yeah. And so "X" marks the spot, a different location.  
14 And do you finally get to an "X" marks the spot that is out in  
03:11:33 15 an area where there is even potential public exposure?

16 A Yes.

17 Q And do you hone in on that spot, on "X" marks the spot and  
18 look at what the maximum ground level concentration is at that  
19 spot?

03:11:49 20 MR. NICHOLAS: Objection. Leading.

21 THE COURT: Overruled. Overruled to the extent it's  
22 a -- what is it, an expert, and I give each side a little bit of  
23 leeway when it comes to that.

24 THE WITNESS: Yes.

03:12:05 25 //

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1 BY MR. NICHOLS:

2 Q And real quick, are the different modeling options --

3 THE COURT: In other words, how many, shall we say,  
4 for want of a better term, Xs are there, infinite, or how is it  
03:12:16 5 calculated? How many different spots to get an average or  
6 whatever of spotting it as it goes out to the fence line and  
7 beyond? How was that determined?

8 THE WITNESS: We -- we spaced the receptors at some  
9 point. That was one of the slides that we --

03:12:34 10 THE COURT: I assume that, but I didn't allow that in.  
11 I'm trying to understand it by words rather than, what is it,  
12 diagrams.

13 THE WITNESS: Depending on the model, we could have  
14 these receptors space -- it's tied every 25 meters along the  
03:12:48 15 property line --

16 THE COURT: Okay.

17 THE WITNESS: -- and three or four deep because, you  
18 know, a lot of times if there a low-level, non-buoyant emission  
19 release, you know, ground level -- it's not hot, there's not a  
03:12:59 20 lot of velocity going anywhere -- the maximum is going to be  
21 right there at the property line.

22 But if you get a hot stack or something, it -- it  
23 ends close to the property line, it might -- the maximum ground  
24 level concentration might not hit ground level until you pass  
03:13:14 25 the property line. So we want to make sure that we have these

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1 things spaced out enough to where we're seeing that maximum hit  
2 and then seeing the concentration start to go down.

3 So we know we've isolated that maximum  
4 concentration because that's what we're interested in comparing  
03:13:30 5 to our standard. And to answer your question, there could be  
6 tens of thousands of these receptor locations. It just -- it  
7 depends on what model we're using and --

8 THE COURT: How does geography go into it? You have  
9 to put some sort of input as far as distance goes, don't you?

03:13:49 10 THE WITNESS: Yes, your Honor. In SCREEN3 there's an  
11 automatic distance array that spaces these things out in a  
12 hundred meters and then does an interpolation between those  
13 hundred meters to get the exact highest concentration that could  
14 possibly be done.

03:14:06 15 BY MR. NICHOLS:

16 Q Then with respect to once you find this out, the way you've  
17 described to the Court -- once you find out what "X" marks the  
18 spot of the highest modeled concentration -- ground level  
19 concentration for a particular pollutant -- I think it's clear  
03:14:23 20 at this point but what do you do with that -- what do you do  
21 with that level? What did you do with that factor?

22 A We compare it to a NAAQS and an ESL.

23 Q And if it falls below a NAAQS and an ESL, is that it?

24 A That's it.

03:14:39 25 THE COURT: That's it, meaning?

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1 THE WITNESS: That means we've satisfied -- we  
2 satisfied the question, or are we going to cause --

3 THE COURT: And I remember but I just want it in the  
4 record: Who sets those limits?

03:14:52 5 THE WITNESS: EPA sets the National Ambient Air  
6 Quality standards and reviews them every five years and TCEQ  
7 sets the effect screening level.

8 THE COURT: I remember that. Go on.

9 BY MR. NICHOLS:

03:15:06 10 Q And so, now, we finally look back to the Court's question  
11 which is in what circumstances do you do not only the SCREEN3  
12 modeling that the Court has heard about but also the industrial  
13 ISC model?

14 THE COURT: What triggers that?

03:15:18 15 THE WITNESS: What triggers that?

16 MR. NICHOLS: Good question.

17 THE WITNESS: It is a good question, and the short  
18 answer is it's a judgment call. The SCREEN3 model handles only  
19 one emission source at a time. So if we've got three emission  
03:15:35 20 sources in an event, we have to run three models.

21 THE COURT: You mean in a source, you mean three  
22 different chemicals going up the stack, the same stack?

23 THE WITNESS: No, sir. Three different stacks.

24 THE COURT: Three different stacks. Okay.

03:15:47 25 THE WITNESS: So it's going to, for example, take this

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1 stack and give you a maximum, and the other stack might be over  
2 here and then gives you a maximum. And we're forced there to  
3 add those maximums irregardless of whether the footprint  
4 overlaps or not. So that's a real limitation to SCREEN3.

03:16:03 5 BY MR. NICHOLS:

6 **Q** Why, in effect, are you trying to do that? Why are you  
7 trying to add those various streams, as it were, to come up with  
8 your ground level concentrations?

9 **A** Again, that's a very conservative estimate. We know if we  
03:16:21 10 do that and we're under a standard or ESL, we're finished.

11 MR. NICHOLS: So let's skip a few of these slides, and  
12 let's go to the example SCREEN3 output slide.

13 We will -- we're not going to talk, your Honor,  
14 about the Gaussian plume models. But let's go -- keep going.

03:16:44 15 Next.

16 BY MR. NICHOLS:

17 **Q** Is this an example of the three screen output that is,  
18 basically, produced in all of the -- all of the modeling reports  
19 that have been provided to everybody in the case?

03:17:00 20 **A** Yes.

21 **Q** Can you just describe for the Court real briefly what we're  
22 seeing in terms of the output. You can use your --

23 **A** I've been waiting to use this. So these are the inputs,  
24 you see, the source type. This is the point, the source that  
03:17:17 25 we've been talking about, so it's a stack. This is the Fluid



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1 Catalytic Cracker Unit 3 with gas scrubber, and we just named  
2 that for all that. And so it's a point storage. It's a stack  
3 and our emission rate is in odd units, grams per second; but  
4 that .126 correlates to one pound per hour. It said one pound  
03:17:42 5 per hour and then do a ratio up from that. The stack height is  
6 a tall stack. It's 67.56 meters. The diameter is 4.4 meters.

7 THE COURT: That's a high stack, but it pushes around,  
8 what, about 200?

9 THE WITNESS: Yes, sir. About 200 feet. So we've got  
03:18:04 10 a gas exit velocity -- that's the amount coming out here of  
11 12.8. The temperature that essentially -- because it's a wet  
12 gas scrubber. It's -- it's not very hot. It's 344 degrees  
13 Kelvin. So it's, you know, about 50 degrees.

14 THE COURT: Doesn't Kelvin go down to absolute zero  
03:18:31 15 eventually on that scale? Isn't the Kelvin scale where you go  
16 to absolute zero?

17 THE WITNESS: Yes, sir.

18 THE COURT: So what is 344 in Fahrenheit?

19 THE WITNESS: 344 should be about -- I don't know, 100  
03:18:47 20 and -- 273 should be about 70. So that's, I don't know, about  
21 150, 60 degrees. I don't know if I did that right. I don't  
22 have my little converting calculator.

23 BY MR. NICHOLS:

24 Q And then the ambient air temperature?

03:19:00 25 A The ambient air temperature is 293 degrees Kelvin, 25

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1 degrees Celsius. And what else do I want to point out? We have  
2 our full meteorology.

3 Q What does that mean?

03:19:20

4 A That means the model is taking the worst possible case of  
5 weather conditions.

6 Q What does that mean?

7 A It means it's going to pick the weather conditions that  
8 give you the most stagnant, non-turbulent conditions in the  
9 atmosphere. So the pollutants are not readily dispersed.

03:19:43

10 Q Does that full meteorology input -- does that necessarily  
11 correlate to what was actually happening during the event?

12 A No, it -- it doesn't at all.

13 Q Why do you use it then?

03:20:03

14 A Because it's another very conservative quick input to the  
15 model.

16 THE COURT: So worst case scenario?

17 THE WITNESS: It's the worst case scenario. That's  
18 exactly right. That's the best way to say it.

19 BY MR. NICHOLS:

03:20:11

20 Q And one thing I hope didn't get lost because I didn't go  
21 through the Gaussian plume analysis but with respect --

22 THE COURT: Thank you. Go on.

23 BY MR. NICHOLS:

03:20:20

24 Q -- with respect to the modeling, are you calculating the  
25 ground level concentration directly downwind of the event?

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1 **A** In SCREEN3 we're --

2 THE COURT: That's the first one, the SCREEN3?

3 THE WITNESS: Right. In the screening model, we're  
4 calculating the distance in 360 degrees. It's just a distance.

03:20:45 5 THE COURT: When you're saying worst case scenario, it  
6 would be, you know, no wind at all, correct? There will be no  
7 assistance in dispersing the plume?

8 THE WITNESS: Yes, your Honor. It would be --

9 THE COURT: Where does wind enter it or it does not  
03:21:00 10 for the purpose of this calculation?

11 THE WITNESS: There's a minimum wind temperature of --  
12 I think it's a meter per second is as low as it goes. They  
13 don't give you -- the math doesn't understand zero, no wind. So  
14 they set the calms, I think, at a meter a second. It's very low  
03:21:22 15 wind speed. Think about a nighttime condition, very stagnant.  
16 Nothing is moving.

17 THE COURT: Like a night in Houston during the summer?

18 THE WITNESS: Exactly, exactly. That's going to be  
19 the worst case meteorology most of the time. There's no solar  
03:21:36 20 radiation. There's no turbulence. The turbulence in the  
21 atmosphere is what drives the dispersion.

22 BY MR. NICHOLS:

23 **Q** So, is that another conservative assumption that's used?

24 **A** It's a very conservative assumption.

03:21:48 25 **Q** All right. And then as a result of the -- do you show at

Parmley - Cross/Nichols

1 the bottom just an example for the Court of a summary of the  
2 screen model results?

03:22:04

3 **A** This is on another page. I actually cut this from another  
4 page so it wouldn't show up on the same page, but this will be  
5 the end of it. And it's just showing us that the max  
6 concentration is predicted in this case at 2948 meters from the  
7 source at ground level at a concentration of .3109 micrograms  
8 per cubic meter for every pound per hour of emission rate.

03:22:33

9 **Q** And so is this the number, this -- on this example, .3109  
10 that you would then use to compare against something else?

11 **A** I would multiply that .3109 times the actual pounds per  
12 hour in emission event and compare that the number to an ESL or  
13 a NAAQS.

03:22:50

14 **THE COURT:** Of course, that amount is reported again  
15 by the producer?

16 **THE WITNESS:** Yes, your Honor.

17 **MR. NICHOLAS:** All right. I think that's it for --

03:23:03

18 **THE COURT:** And the Government takes into  
19 consideration -- they're the ones calling the shots as far as  
20 reporting correct numbers, correct?

21 **THE WITNESS:** Yes, your Honor. They do have an  
22 opportunity to review those numbers as well. The reports are  
23 sent to them.

24 **BY MR. NICHOLS:**

03:23:12

25 **Q** And just to make sure that the point is clear, if

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1 the -- Mr. Nicholas asked you about using the 98 or 99 percent  
2 flare -- the DREs, the destruction efficiencies in your -- as  
3 part of your models?

4 **A** I'm sorry, could you repeat that?

03:23:26

5 **Q** Sure. Mr. Nicholas asked you a question about do you use  
6 the destruction rate efficiencies, that 98 or 99 percent that  
7 the Court has heard about, as part of this modeling?

8 **A** Yes, we do.

03:23:41

9 **Q** And is that part of the rules of the road that are set by  
10 federal regulation?

11 **A** Yes.

12 **Q** Okay. Now, with respect to your work in the case, I want  
13 to show you -- make sure we identify for the record your various  
14 reports. Did you produce an original report in the case dated  
15 March 16, 2012, marked as Defendants' Exhibit 187?

03:23:59

16 **A** Yes.

17 **Q** And then with respect to a supplemental report, did you  
18 produce another report, Defendants' Exhibit 188, that is dated  
19 May the 15th of 2012?

03:24:28

20 **A** Yes.

21 **Q** And then finally, did you further supplement your work with  
22 a report that we've marked as Defendants' Exhibit 188A, as in  
23 Adam, which is dated November 21, 2013?

24 **A** Yes.

03:24:45

25 THE COURT: November what?

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1 MR. NICHOLS: November the 21st of 2013, your Honor.

2 THE COURT: So, that's about a year, year and half  
3 later?

4 MR. NICHOLS: Yes, sir. And then also have we marked  
03:24:59 5 various of your -- Sage Environmental's modeling studies as  
6 evidence in the case?

7 **A** Yes.

8 **Q** And after you've had a chance to go through this stack --

9 MR. NICHOLS: Which I'll recite for the Court is  
03:25:18 10 marked as Defendants' Exhibits, your Honor, 435 through 471  
11 inclusive.

12 THE WITNESS: Yes, I have.

13 BY MR. NICHOLS:

14 **Q** And are those reports -- air dispersion modeling reports  
03:25:37 15 that you and others at Sage Environmental have performed using  
16 this methodology that you've described to the Court?

17 **A** Yes.

18 **Q** And do each and every one of those relate to events that  
19 occurred at the Baytown Complex?

03:25:47 20 **A** Yes, they do.

21 **Q** Mr. Parmley, have you applied your expertise over these 30  
22 years numerous times to the exercise of air dispersion modeling?

23 **A** Yes.

24 **Q** How many times could you estimate for the Court that you  
03:26:30 25 have done and worked with others, collaborating with others in

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1 producing air dispersion models?

2 **A** Peer review air dispersion models, in excess of 400.

3 **Q** And once you provide -- do these models -- once you

4 actually model out the maximum off-site ground level

03:26:56

5 concentrations for a particular event, do you often provide

6 those results to someone such as a toxicologist who can do

7 further interpretation of those results as needed?

8 **A** Well, in this case I would have given them to Exxon and

9 they could have given them to a toxicologist.

03:27:22

10 **Q** But can a toxicologist, in your view, come over the top of

11 what you have done and look at those results?

12 **A** Yes, absolutely.

13 MR. NICHOLAS: Objection.

14 THE COURT: He said look at those results.

03:27:33

15 MR. NICHOLAS: He testified that he's not a

16 toxicologist so --

17 THE COURT: I understand. I'm listening to the

18 questions carefully. Overrule the objection.

19 So a toxicologist can look at those results?

03:27:41

20 THE WITNESS: Yes, sir.

21 BY MR. NICHOLS:

22 **Q** And has that happened with some regularity during the

23 course of your career, that a toxicologist will look at the

24 results of air dispersion modeling?

03:27:59

25 **A** Yes.

1 MR. NICHOLS: Judge, I'll pass the witness.

2 MR. NICHOLAS: No questions.

3 THE COURT: Thank you, sir. Sir, you may step down,  
4 you're excused, you're free to leave.

03:28:34 5 Call your next witness.

6 MR. NICHOLAS: Tom Ranna.

7 THE COURT: How do you spell his last name?

8 MR. NICHOLAS: Oh, I'm sorry. I misspoke. We have  
9 the -- we're calling John Sadlier by videotape deposition.

03:28:50 10 THE COURT: How long is it?

11 MR. NICHOLAS: I believe it is approximately 40  
12 minutes long.

13 MR. ALEXANDER: And, your Honor, I apologize. We have  
14 a segment to play for the Court after that.

03:29:01 15 THE COURT: Okay. So it's 40 minutes. Who is he?  
16 What does he do?

17 MR. NICHOLAS: He is a former -- John Sadlier is a  
18 former head of enforcement at TCEQ.

19 THE COURT: Hang on one second. Okay. How long is  
03:29:26 20 your portion?

21 MR. ALEXANDER: Your Honor, it's about the same, less  
22 than 45 minutes.

23 THE COURT: All right. Are we going to have a lot of  
24 these people appearing by video?

03:29:35 25 MR. NICHOLAS: No, this is the only one.



## Sadlier - Videotaped Deposition

1 MR. ALEXANDER: This is the only deposition, your  
2 Honor, and it's videotaped.

3 THE COURT: Because the late Lucius Bunton, you know,  
4 he didn't allow any -- I think if it's written, you just  
03:29:46 5 summarized it. If it's video, it's your best "X" number of  
6 minutes.

7 MR. ALEXANDER: Your Honor, I can assure the Court  
8 I've taken a hatchet to it.

9 THE COURT: Oh, no, I'm not looking to --

03:30:02 10 MR. NICHOLS: Well, we've got -- I'm talking to my --

11 MR. NICHOLAS: In fairness, they also listed him as  
12 their own witness.

13 THE COURT: All right. You pared it down as best you  
14 can?

03:30:07 15 MR. NICHOLAS: Yes.

16 THE COURT: All right. The only way to do it is to  
17 say all right, let's go.

18 (The following excerpts of the videotaped deposition of  
19 **JOHN SADLIER** were played in open court:)

03:30:26 20 **Q** Would you please state your name for the record.

21 **A** My name is John Sadlier.

22 THE COURT: A little louder, please.

23 (The following excerpts of the videotaped deposition of  
24 **JOHN SADLIER** were played in open court:)

03:30:59 25 **Q** Would you please state your name for the record.

## Sadlier - Videotaped Deposition

1 **A** My name is John Sadlier.

2 **Q** Mr. Sadlier, where do you live?

3 **A** Pflugerville, Texas, right outside of Austin.

4 **Q** Until recently, Mr. Sadlier, did you work with the Texas

03:31:15 5 Commission on Environmental Quality or the TCEQ?

6 **A** I did.

7 **Q** What is the TCEQ?

8 **A** It is the State Environmental Protection Agency.

9 **Q** And have you retired from the TCEQ?

03:31:24 10 **A** I retired from the TCEQ, July 30, 2011.

11 **Q** What position, Mr. Sadlier, did you hold with the TCEQ at  
12 the time that you retired?

13 **A** I was the deputy director for the Office of Compliance and  
14 Enforcement.

03:31:38 15 **Q** Turning back to your situation, Mr. Sadlier, from 1998  
16 through 2011, did you hold any management positions within  
17 the -- within the agency that was first known as the TNRCC and  
18 later the TCEQ?

19 **A** I did. Through my career of almost 20 years, I started as  
03:32:01 20 an enforcement coordinator, someone who actually processes  
21 enforcement actions, but then I was a supervisor, frontline  
22 supervisor for several years, a section manager for several  
23 years, a division director. The enforcement division at that  
24 time had 120 employees who did all the enforcement for the  
03:32:22 25 state, and then near the end of my career in July of 2007, I

## Sadlier - Videotaped Deposition

1 believe, I was promoted to deputy director for the Office of  
2 Compliance and Enforcement. The office has a much wider scope.  
3 So, in 2005 through 2007, I'm the enforcement director. I have  
4 about 120 employees. 2007 through the end of 2011, through the  
03:32:50 5 end of the fiscal year, I have about 1300 employees.

6 MR. NICHOLS: Could we pause just for a second, your  
7 Honor?

8 THE COURT: Pause it, please.

9 MR. NICHOLS: Your Honor, I believe that we could  
03:33:01 10 agree on the excerpts that are being played which would save our  
11 court reporter from having to retranscribe the tape as it's  
12 being played. I just make that offer in case it makes it easier  
13 on everybody.

14 MR. NICHOLAS: I don't fully understand what you mean.

03:33:18 15 MR. NICHOLS: In other words, we could -- we have a  
16 transcript of this already that's being played. We don't have  
17 to have Ms. Dye have to retranscribe it. We can agree among  
18 ourselves that we'll make this part of the record.

19 MR. NICHOLAS: We've already -- I believe your Honor  
03:33:35 20 required a submission of our excerpts before the Court before  
21 the trial.

22 THE COURT: Do you agree with that?

23 MR. NICHOLS: I think he's agreeing, your Honor.

24 MR. NICHOLAS: Our excerpts are not in order of how  
03:33:47 25 they appear --

## Sadlier - Videotaped Deposition

1 THE COURT: Is there a transcript that has --

2 MR. NICHOLAS: No.

3 MR. NICHOLS: Yes. We'll make one.

4 MR. NICHOLAS: Actually, we submitted to the Court

03:33:55 5 our -- I guess we cut and paste.

6 THE COURT: I'll tell you what. Hold it a second.

7 Off the record. Come visit with the court reporter.

8 (Discussion off the record.)

9 THE COURT: All right. You've agreed then there will

03:34:32 10 be -- after the -- after this is done, sometime you will file a  
11 joint transcript of everything that was played in court. So  
12 there's no need for the court reporter to take it down verbatim.  
13 Is that the agreement of the Plaintiff?

14 MR. NICHOLAS: Yes, although we were hoping to present  
03:34:48 15 ours in the order that it was played.

16 THE COURT: Absolutely.

17 MR. NICHOLS: Yes, sir. So agreed.

18 THE COURT: In the order that it was played. All  
19 right.

03:34:54 20 I'll tell you what, do you want to give the court  
21 reporter a break, and we'll keep going? We'll get back in at 20  
22 minutes to and go on for about another half hour, something like  
23 that.

24 (Excerpts of the videotaped deposition of **JOHN SADLIER** were  
05:31:49 25 played in open court.)

## Sadlier - Videotaped Deposition

1 (Court recessed at 5:31 p.m.)

2 (Court resumed at 5:41 p.m.)

3 THE COURT: I have one question for the Plaintiff,  
4 another little bit of -- another interim argument. Okay? What  
05:41:22 5 is the Plaintiffs' basic position concerning the agreed order of  
6 February 22, 2012? Your basic position on that.

7 MR. NICHOLAS: After Plaintiff sued, Exxon went to  
8 TCEQ to cut a beneficial order in order to try to basically beat  
9 us out of the case.

05:41:47 10 THE COURT: Got it. Thank you so much. All right.  
11 Call your next witness.

12 MR. NICHOLAS: Tom Ranna.

13 Oh, your Honor, we -- Plaintiffs will be calling  
14 Dr. Brooks tomorrow morning.

05:41:59 15 THE COURT: Right.

16 MR. NICHOLAS: And so Mr. Ranna's examination or cross  
17 examination may be interrupted for that tomorrow morning.

18 THE COURT: Any problem with that?

19 MR. ALEXANDER: None your Honor.

05:42:10 20 THE COURT: That's fine. What time is the doctor  
21 getting here?

22 MR. NICHOLAS: He'll be first thing.

23 THE COURT: Okay, all right.

24 Call your next witness, please.

25 //

Ranna - Direct/Nicholas

1 (The witness, **TOM RANNA**, called on behalf of the  
2 Plaintiffs, was sworn.)

3 DIRECT EXAMINATION

4 BY MR. NICHOLAS:

05:42:42 5 **Q** State your name, please.

6 **A** My name is Tom Ranna.

7 THE COURT: How do you spell your last name?

8 THE WITNESS: R-a-n-n-a.

9 THE COURT: Okay. Go right ahead, please.

05:42:53 10 BY MR. NICHOLAS:

11 **Q** Good afternoon, Mr. Ranna.

12 **A** Good afternoon.

13 **Q** I'm Dave Nicholas. Mr. Ranna, where do you live?

14 **A** I live in Taylor Lake Village.

05:43:05 15 **Q** What town is that?

16 **A** That's part of Seabrook outside of Houston.

17 **Q** By whom are you employed?

18 **A** ExxonMobil.

19 **Q** Could you just give your educational background?

05:43:15 20 **A** Certainly. I received a Bachelor of Science in Engineering  
21 from Vanderbilt University.

22 THE COURT: What engineering?

23 THE WITNESS: Mechanical engineering and a Masters in  
24 Business Administration from Tulane, Freeman School.

05:43:29 25 THE COURT: MBA?

Ranna - Direct/Nicholas

1 THE WITNESS: Yes, sir.

2 THE COURT: From Tulane?

3 THE WITNESS: Yes, your Honor.

4 THE COURT: Thank you.

05:43:34 5 BY MR. NICHOLAS:

6 Q You work at the Baytown Complex?

7 A Yes, I do.

8 Q What is your title?

9 A My title is lead reliability engineer.

05:43:43 10 Q How long have you been a reliability engineer at the  
11 Baytown Complex?

12 A Well, I've been doing reliability engineering since '97  
13 although we started the label of reliability engineer probably  
14 in '99.

05:44:00 15 THE COURT: But you started with them in reliability  
16 of what year, start?

17 THE WITNESS: The position -- I started the position,  
18 which we called at the time maintenance technology --

19 THE COURT: '97?

05:44:13 20 THE WITNESS: -- in 1997, yes, your Honor.

21 THE COURT: Go on. Thank you.

22 BY MR. NICHOLAS:

23 Q Have you held any other jobs at the Baytown Complex?

24 A Yes. Previous to that I was maintenance contact engineer  
05:44:25 25 and held other various turnaround project jobs.

Ranna - Direct/Nicholas

1 THE COURT: What area did you get your Bachelors in  
2 Mechanical Engineer?

3 THE WITNESS: My Bachelors in Mechanical Engineering  
4 was in '83.

05:44:36 5 THE COURT: Thank you.

6 BY MR. NICHOLAS:

7 Q What department do you work in?

8 A I work in the Baytown Engineering Services Department.

9 Q And do you work for a section within the Baytown  
05:44:47 10 Engineering Services Department?

11 A Yes, I do.

12 Q And what section do you work in?

13 A That's the reliability section.

14 Q What is your job function as a reliability engineer?

05:44:56 15 A The job function of reliability engineer includes a variety  
16 of improve -- of administering work processes largely related to  
17 analyzing, planning, and improving a variety of reliability  
18 practices at the site.

19 THE COURT: What does that mean?

05:45:21 20 THE WITNESS: That means I contribute to developing  
21 preventive maintenance practices. I contribute to -- in fact, I  
22 lead the development of those preventive maintenance practices,  
23 your Honor. I also participate in setting an annual plan for  
24 our maintenance activities and other reliability improvement  
05:45:42 25 activities that we do each year. I lead a variety of



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1 investigations. And I mentor a team of other younger  
2 reliability engineers, engage in the same basic pursuits.

3 BY MR. NICHOLAS:

05:45:59

4 Q You also develop and administer so-called predictive  
5 maintenance systems?

6 A Yes, sir.

7 Q Now, do you recall that I took your deposition?

8 A Yes, sir.

05:46:11

9 Q All right. And at your deposition you stated that  
10 preventive maintenance is maintenance --

11 MR. ALEXANDER: Your Honor, I object to the improper  
12 impeachment and use of deposition.

13 THE COURT: Let me see where it's going. I  
14 understand.

05:46:18

15 BY MR. NICHOLAS:

16 Q At your deposition you stated that preventive maintenance  
17 is maintenance that truly eliminates a future failure. Do you  
18 recall that?

19 A Yes.

05:46:28

20 Q And at your deposition you stated that predictive  
21 maintenance is one that does not actually eliminate the failure  
22 but predicts the failure and allows you to mitigate the  
23 consequences of failure. Do you remember that?

24 A Yes, I recall that.

05:46:45

25 Q The vast majority of maintenance at the Baytown Complex is

Ranna - Direct/Nicholas

1 predictive maintenance?

2 **A** At its core that is correct, the vast majority of our work  
3 is monitoring type activities which predict a failure and allow  
4 us to intervene such that the consequences of failure are  
05:47:07 5 minimized.

6 **Q** Do you know what an emission event is?

7 **A** I know what -- I'm not -- no, sir, I'm not. You'll have to  
8 help me a little more, please.

9 **Q** Well, let me just show you -- let me show you your

05:47:26 10 deposition.

11 THE COURT: Hang on one second. Let me get -- you  
12 want the overhead, correct?

13 BY MR. NICHOLAS:

14 **Q** Now, if you could turn to the screen, I asked you, "Do you  
05:47:46 15 know what an emission event is?"

16 THE COURT: Page and line, please?

17 MR. NICHOLAS: I'm sorry. Page 10, line 15 and 16.

18 BY MR. NICHOLAS:

19 **Q** I asked you, "Do you know what an emission event is?"

05:47:58 20 And you said, "Yes."

21 Do you recall that?

22 **A** Yes, I recall that.

23 **Q** Okay. And you actually had a -- you had an opportunity to  
24 review your deposition?

05:48:18 25 **A** Yes.

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1 Q And make any changes?

2 A Yes, sir.

3 Q And you did, and you made changes, not to that line,  
4 though, correct?

05:48:27 5 A Yes, sir, I presume that's correct.

6 Q All right. Now, equipment breakdowns can lead to an  
7 emission event at the Baytown Complex, right?

8 A Yes, sir, that's true.

9 Q Proper maintenance reduces the risk of equipment failure?

05:49:07 10 A Yes, sir. Proper maintenance is employed to manage overall  
11 risk of failure for our assets, that is correct.

12 Q Well, my question was a little more specific, which is  
13 proper maintenance reduces the risk of equipment failure. Can  
14 we agree on that?

05:49:25 15 A Yes, sir.

16 Q Proper maintenance reduces emission events at the Baytown  
17 Complex?

18 A That is one of the many benefits of proper maintenance,  
19 yes.

05:49:41 20 Q The reliability department tracks failures of certain  
21 equipment?

22 A We do.

23 Q Other departments at the Baytown Complex also track  
24 failures of certain equipment?

05:49:54 25 A Yes. There are a variety of measures of failures that

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1 happen at our facility, yes.

2 **Q** Tracking equipment failures provides information on  
3 equipment reliability?

4 **A** Yes, sir, I would agree.

05:50:16 5 **Q** Tracking equipment failures provide information that can be  
6 used for design related purposes?

7 **A** That's not necessarily true, no, sir.

8 **Q** Well, tracking certain equipment failures provides  
9 information that can be used for design related purposes,

05:50:39 10 correct?

11 **A** No, sir.

12 **Q** All right. Let me -- all right. Do you recall at the  
13 deposition -- at the deposition you discussed --

14 MR. ALEXANDER: Sorry. Can I have page and line,  
05:51:06 15 please?

16 MR. NICHOLAS: I haven't gotten there yet.

17 MR. ALEXANDER: Well, you're about to put it up.

18 MR. NICHOLAS: 44 -- page 44, line 19 through 45, line  
19 2. So 44, line 19, all right.

05:51:22 20 BY MR. NICHOLAS:

21 **Q** I asked you -- and we were talking about pump failures and  
22 tracking pump failures. "And the information on pump failures  
23 complex-wide is used by your group to come up with suggestions  
24 on how to change predictive and preventive maintenance for  
05:51:50 25 pumps, correct?"

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1 And you said, "That data is used for a variety of  
2 improvement ideas. It could be preventive and predictive  
3 maintenance. It could be design related. There could be a  
4 variety of different reasons."

05:52:01

5 Do you recall that?

6 **A** Yes, I do.

7 **Q** So tracking equipment failures can be used to develop  
8 preventive and predictive maintenance?

05:52:29

9 **A** Tracking equipment failures gives us an overall measure of  
10 success of those three facets I spoke about in my deposition.

11 **Q** Now, let's -- I guess I'll ask you a few examples of  
12 complex tracking equipment failures. Your department tracks  
13 pump failures, right?

14 **A** That's correct.

05:52:46

15 **Q** Information is gathered on how much time passes between  
16 pump failures?

17 **A** Yes, sir.

18 **Q** Information is gathered on how much time passes between  
19 pump repairs?

05:53:01

20 **A** Yes, sir. I need to clarify my previous response. We  
21 track mean time between failure and mean time between repair.  
22 We have modulated on those two measures, but they basically mean  
23 the same thing. It's a measure on how long a pump can run in  
24 between maintenance intervention.

05:53:21

25 **Q** And this information is looked at on an aggregate basis?

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1 **A** Yes, sir.

2 **Q** Your department uses this information on pump failures and  
3 repairs to come up with the suggestions on how to make pumps  
4 more reliable?

05:53:42 5 **A** Yes, sir.

6 **Q** Now compressors are another type of equipment whose  
7 performance is tracked at the Baytown Complex?

8 **A** Correct.

9 **Q** The machinery engineering group tracks compressor  
05:53:56 10 performance?

11 **A** Yes.

12 **Q** Compressor performance is tracked on a plant-wide basis?  
13 By "plant," I mean by refinery --

14 **A** Refinery plant, the Baytown olefins plant, that is correct,  
05:54:09 15 yes, sir.

16 **Q** Exxon has reliability systems intended to prevent  
17 compressor failures?

18 **A** We have equipment strategy systems prevented to manage the  
19 risk of compressor performance.

05:54:26 20 **Q** Compressor performance is tracked to give Exxon an  
21 overarching measure of the health of its compressor reliability  
22 systems?

23 **A** Yes, sir, that's true.

24 **Q** And if Exxon's compressor reliability systems show an  
05:54:41 25 unfavorable trend, that might spur a plant-wide trend to change

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1 compressor reliability?

2 **A** I'm not sure I -- by "change," sir, you mean a focus in any  
3 of our work practices that set preventive maintenance, that  
4 could be true, yes, sir.

05:55:09 5 **Q** Let me just show you page 45 in your deposition --  
6 actually, page 46. I asked you, "And if the compressor metric  
7 shows an unfavorable trend, it's possible that there would be  
8 plant-wide changes made to compressor reliability?"

9 **A** Correct.

05:55:45 10 **Q** And you answered?

11 MR. NICHOLS: Your Honor, I had an objection to that  
12 question as to the word "possible."

13 THE COURT: Overruled.

14 MR. NICHOLAS: Your Honor, I'm not sure I was --

05:55:55 15 THE COURT: Go on. Just keep going.

16 MR. NICHOLAS: I was going to address the issue of two  
17 people -- two attorneys making objections.

18 MR. ALEXANDER: I might address that myself, your  
19 Honor.

05:56:03 20 THE COURT: Well, I've been pretty flexible on that  
21 through the years; but, yeah, I'll enforce that then. Now, I  
22 understand your position, you're correct. So one at a time,  
23 okay. Whoever has got the witness, unless it's something vital.  
24 Then I'll look at the pained expression on lawyers who are not  
05:56:22 25 up and recognize them.

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1 Okay, go on.

2 BY MR. NICHOLAS:

3 Q I asked you, "And if the compressor metric shows an  
4 unfavorable trend, it's possible that there will be plant-wide  
05:56:32 5 changes made to compressor reliability, correct"?

6 And you answered, "If you're asking is it  
7 possible that we would have a plant-wide change, I'd say, 'Yes,  
8 it's possible.'"

9 Do you recall that?

05:56:45 10 A Yes, sir.

11 Q Exxon has a target of the compressor performance at the  
12 olefins plant?

13 A Yes, sir, that's correct.

14 Q The target for compressor performance at the olefins plant  
05:57:03 15 is measured in trips per year?

16 A That's correct.

17 Q Trips, meaning the compressor goes off-line?

18 A That's correct.

19 Q And you have a plant-wide target for -- excuse me, you have  
05:57:17 20 a plant-wide target for number of compressor trips per year,  
21 correct?

22 A That's correct.

23 Q And Exxon set the target of one quarter of a trip per  
24 compressor year -- excuse me, Exxon set the target for the  
05:57:29 25 olefins plant of one quarter of a trip per compressor per year;



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1 is that right?

2 **A** At the time of my deposition, I was recalling an historical  
3 number I had, yes, sir. And, in fact, we've updated that target  
4 recently. It's somewhat lower now just to be accurate.

05:57:48 5 **Q** All right. At the time I took your deposition it was one  
6 quarter of a trip per compressor per year?

7 **A** That's correct. That's my recollection.

8 **Q** And just so I understand what that means, if there were one  
9 compressor, that would be a target of one trip every four years?

05:58:02 10 **A** Correct.

11 **Q** And if there were four compressors, the target would be one  
12 trip per year?

13 **A** Correct.

14 **Q** And so the target was at the time I took the deposition --  
05:58:14 15 or at least in 2011 -- excuse me. When you took -- when I took  
16 your deposition, which was in 2012 --

17 **A** Correct.

18 **Q** -- the compressor trip target was .25 trips per compressor  
19 per year, correct, converting it to a decimal?

05:58:30 20 **A** Right.

21 **Q** And in 2011, the year before I took your deposition, the  
22 olefins plant had .3 to .4 compressor trips per year, correct?

23 **A** I honestly don't recall that number.

24 **Q** Okay. And what is the compressor trip target currently for  
05:59:04 25 the olefins plant?

Ranna - Direct/Nicholas

1 **A** The trip currently is .15 trips per year.

2 **Q** Okay. All right. Exxon also has a target for compressor  
3 performance at the refinery?

4 **A** I'm sorry, you'll have to be more --

05:59:34 5 **Q** I'm sorry. Exxon also has a target for compressor  
6 performance not just at the olefins plant but also at the  
7 refinery?

8 **A** I'm not exactly sure if we have a stated performance target  
9 for the refinery's compressors.

05:59:55 10 **Q** Do you recall that the refinery has a goal of uptime for  
11 compressors? Does that ring a bell?

12 **A** We measure the uptime for compressors, measured in a  
13 percentage 99.9 percent to that extent. I don't recall seeing  
14 an actual numerical goal that the organization is aligned on in  
06:00:16 15 the refinery. We typically shoot for hundred percent. That's  
16 really -- that's our goal.

17 **Q** Let me just go back. I'm sorry. I would like to just go  
18 back to the number of trips of compressors that the olefins  
19 plant actually experienced, and you said that you couldn't  
06:00:41 20 recall .3 to .4 trips per year. And this is on page 84 of your  
21 deposition; and starting on page -- line 19, I asked about the  
22 compressor trips at the olefins plant: "What are you at now?"

23 And you said, "The last time I remember looking  
24 at it, which was a couple of years ago, we were" --

06:01:08 25 THE COURT: Slow down. The reason being is the court

Ranna - Direct/Nicholas

1 reporter needs to get it.

2 BY MR. NICHOLAS:

3 Q "The last time I remember looking at it, which was a couple  
4 of years ago, we were in the two and half -- I'm sorry, I have  
06:01:17 5 to translate it. We actually look at -- we were in the .4 to .3  
6 trips per year."

7 Do you recall that?

8 A Yes, sir.

9 Q Okay.

06:01:40 10 A But may I clarify? The background of that question in the  
11 deposition was for the olefins plant. I may have misunderstood  
12 your previous question. I thought you were asking about a  
13 refinery goal.

14 Q Yes. For the uptime, I was talking about the refinery  
06:01:56 15 goal.

16 A Okay.

17 Q Now, we're on the same page.

18 A All right.

19 Q I switched back to the olefins plant because I was briefly  
06:02:03 20 unable to find your deposition testimony.

21 A Okay.

22 Q Now, back to the refinery and the uptime that we just  
23 discussed. At your deposition on page 85, line -- 85, lines 22  
24 through 25, I asked you: "Is there a goal for compressors at  
06:02:31 25 the refinery?"

Ranna - Direct/Nicholas

1 And you said, "There is but I'm not familiar. I  
2 can't quote that for you."

3 Do you recall that?

4 **A** Yes, I do.

06:02:48 5 **Q** All right. I have a few questions on leaks. A leak of a  
6 machinery seal can turn into an emission event?

7 **A** If you're asking: Is it -- does --

8 **Q** Why don't I show you your deposition.

9 **A** Okay.

06:03:22 10 **Q** All right. Let's take a look at page 30 where you stated  
11 "A leak of a machinery seal could be an emission event."

12 Do you see that?

13 **A** Yes.

14 **Q** Okay. Now, a leak in a pipe can turn into an emission  
06:03:45 15 event?

16 **A** Yes, sir.

17 **Q** Pipes can be inspected, right?

18 **A** Yes.

19 **Q** Pipe inspections help predict where there will be leaks?

06:03:58 20 **A** Yes, sir, that's correct.

21 **Q** And emissions events can be avoided by following up on pipe  
22 inspection data?

23 Why don't I show you your deposition again.

24 **A** All right.

06:04:20 25 **MR. ALEXANDER:** Your Honor, I'd ask that the witness

Ranna - Direct/Nicholas

1 be given the opportunity --

2 MR. NICHOLAS: That's fine.

3 MR. ALEXANDER: -- to answer the question first. This  
4 is all improper impeachment.

06:04:29 5 THE COURT: Okay.

6 THE WITNESS: I'm sorry. Can you repeat the question?

7 BY MR. NICHOLAS:

8 Q Sure. Emission events can be avoided by following up on  
9 the pipe inspection data?

06:04:38 10 A Well, yes, of course. The inspection data is meant to give  
11 you an indication where you have thinning metal and gives you an  
12 opportunity to make a repair before a leak can happen.

13 Q Leaks can be detected by personal observation, right?

14 A That's correct.

06:04:51 15 Q Leaks can be detected by smell?

16 A Yes, that's correct.

17 Q Leaks can be detected by sight if they're leaks of liquid?

18 A That's true, yes.

19 Q Seeking or touching a vibrating piece of equipment is an  
06:05:07 20 indication that a possible equipment failure is coming?

21 A That is correct.

22 Q Feeling heat coming off of equipment is an indication that  
23 a possible equipment failure is coming?

24 A Yes. Those are all monitoring activities that are utilized  
06:05:21 25 by our operators.

Ranna - Direct/Nicholas

1 Q Now, certain types of -- certain types of leaks are tracked  
2 at the Baytown Complex, right?

3 A Yes, sir.

4 Q Leaks of fixed equipment are tracked?

06:05:33

5 A Correct.

6 Q Leaks of fixed equipment such as pipes and vessels are  
7 tracked?

8 A Yes, sir, that's correct.

9 THE COURT: Wrap it up in a couple of minutes, okay.

06:05:48

10 BY MR. NICHOLAS:

11 Q Leak data are sometimes looked at on a unit level?

12 A We have the data available at a unit level. The data is  
13 presented at the department and business team levels orally.

14 Q What's a department level?

06:06:08

15 A The Baytown refinery, for instance, is made up of four  
16 different departments. The Baytown chem plant is a single  
17 department. The Baytown olefins plant is a single department.  
18 It's just a -- rather arbitrary measure of size of our  
19 organization that we use to organize an operation group under  
20 one department head.

06:06:28

21 Q And did you mention that leaks are also looked at on a  
22 business unit level? Do I have that correct?

23 A They are, yes. They are reported for the three main  
24 businesses in Baytown, the refinery, the chem plant, the olefins  
25 plant.

06:06:45

Ranna - Direct/Nicholas

1 Q All right. Now, are you familiar with the concept of  
2 corrosion under insulation?

3 A Yes, sir, I am.

06:07:15

4 THE COURT: Why don't we -- why didn't we end it right  
5 about there?

6 MR. NICHOLAS: Okay.

7 THE COURT: Okay? Because we got a full day in. We  
8 can just keep going on and on but need to cut somewhere, and  
9 you're moving into sort of a different area.

06:07:26

10 Okay. We'll adjourn at this time. See everybody  
11 back ready to resume tomorrow morning at 10:00 a.m.

12 (Court recessed for the day at 6:07 p.m.)

13

14

## 15 C E R T I F I C A T E

16

17 I certify that the foregoing is a correct transcript  
18 from the record of proceedings in the above-entitled matter, to  
19 the best of my ability.

20

21 By: /s/Gayle L. Dye

04-18-2014

22 Gayle L. Dye, CSR, RDR, CRR

Date

23

24

25